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*Institute Report No. 262*

**A Carcinogenicity Bioassay of  
Isobutyl 2-Cyanoacrylate (IBC)  
in Fischer-344 Rats--  
One-Year Interim Sacrifice Report**

**(Volume 2 of 2)  
(Part 2)**

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and  
Don W. Korte, Jr., PhD, MAJ, MSC

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**TOXICOLOGY BRANCH  
DIVISION OF COMPARATIVE MEDICINE AND TOXICOLOGY**

March 1988

Toxicology Series: 144

LETTERMAN ARMY INSTITUTE OF RESEARCH  
PRESIDIO OF SAN FRANCISCO, CALIFORNIA 94129

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A Carcinogenicity Bioassay of Isobutyl 2-Cyanoacrylate (IBC) in Fischer-344 Rats--One-Year  
Interim Sacrifice Report, Volume 2 of 2, Part 2 (Toxicology Series 144)--Brown et al

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In conducting the research described in this report, the investigation adhered to the "Guide for the Care and Use of Laboratory Animals," as promulgated by the Committee on Revision of the Guide for Laboratory Animal Facilities and Care, Institute of Laboratory Animal Resources, National Research Council.

This material has been reviewed by Letterman Army Institute of Research and there is no objection to its presentation and/or publication. The opinions or assertions contained herein are the private views of the author(s) and are not to be construed as official or as reflecting the views of the Department of the Army or the Department of Defense. (AR 360-5)

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*30 Mar 88*  
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19. ABSTRACT (Continue on reverse if necessary and identify by block number)  This report covers the results from the first year of a two-year carcinogenicity bioassay of the tissue adhesive, isobutyl 2-cyanoacrylate (IBC). Four hundred seven 6-week old Fischer-344 rats were randomized into three groups (control, 10 µl IBC, and 100 µl IBC), each group containing both male and female animals. The IBC was administered by surgical implantation of liquid monomer directly onto the ventral capsule of the liver. The monomer was allowed to polymerize before two-layer closure of the abdominal incision.			
Control animals received 100 µl of isotonic saline also by surgical implantation. Twenty-five animals were removed from the study during the first week after surgery because of underweight condition or post operative complications.			
All animals were examined daily and weighed and palpated monthly. The animals presented with			
(Continued on Reverse)			
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Item 19 continued:

a variety of transitory clinical signs sporadically throughout the year in addition to the more permanent sequelae of the surgical procedure (xyphoid protuberance, corneal opacity). These signs were observed in all dose groups and could not be attributed to compound administration. The weight gain of the two IBC treatment groups was comparable to that recorded for the control group. During the first year, 17 animals died or were sacrificed; three were unscheduled deaths and 14 were unscheduled sacrifices. At the end of the first year 60 animals, 10 males and 10 females from each of the three groups, were selected randomly for a scheduled interim sacrifice. Three hundred and five animals remained on study at the start of the second year.

A total of 77 animals (17 unscheduled and 60 scheduled) were evaluated at necropsy during the first year. Fourteen of 14 unscheduled animals and 39 of 40 scheduled animals that received the IBC had fibrotic adhesions between the liver and the omentum, peritoneal membrane, dia-phragm, stomach, skin, and/or intestine. These lesions were characterized histologically as foreign body granulomatous reactions. Nine tumors were observed in three unscheduled (total four tumors) and five scheduled animals. The unscheduled animal tumors included an atriocava epithelial mesothelioma (10 ul IBC male), a mononuclear cell leukemia of splenic origin (10 ul IBC female), and a pituitary adenoma and mononuclear cell leukemia (100 ul IBC female). The scheduled animal tumors included an endometrial stromal polyp (10 ul IBC female), testicular mesothelioma (10 ul IBC male), adrenal gland cortical adenoma (10 ul IBC male), and pituitary adenomas (control and 10 ul IBC males). These tumors were spontaneous lesions and were considered incidental to IBC treatment. All other gross or histopathological findings were also considered incidental to IBC treatment or were sequelae of the surgical procedure.

Results of this study indicate that IBC has no effect on survival, weight gain, or the clinical condition of rats during the first year following its implantation. The only gross or histopathological finding observed in the first year attributed to the IBC treatment was the presence of adhesions on and a granulomatous reaction of the liver and those adjacent organs that came in contact with the IBC. No tumors were observed during the first year that could be attributed to IBC treatment.

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Volume II - Part 2

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Glossary of Tumor, Compound Related Findings and Frequently Observed Incidental Lesions for Isobutyl 2-Cyanoacrylate Carcinogenicity Assay - GLP Study 83009

RAT CHRONIC RENAL DISEASE

Rat chronic renal disease is prevalent in many strains of rat including the Fischer 344. The cause of the disease is unknown. It is a progressive disease in which the incidence and severity increase with age. Microscopic lesions may occur as early as three months, but severe lesions are rarely found in rats less than one year of age. Tubules, glomeruli, interstitium and small blood vessels are all involved.

Interstitial changes progress from small perivascular aggregates of lymphocytes in between the tubules to interstitial fibrosis and increased numbers of mononuclear leukocytes in later stages. Tubular changes start with dilation and filling of tubular lumens with hyaline material. Tubular epithelial cells eventually show degenerative changes such as vacuolation, accumulation of hyaline droplets and necrosis in severe cases. These cells may range from being flattened to being hyperplastic (during regenerative attempts) when they are large and pleomorphic. Tubular basement membranes frequently thicken and ultimately both cystic dilatation and tubular atrophy occur.

Glomerular changes usually become apparent by light microscopy a little later than tubulo-interstitial changes. Thickening of Bowman's capsular basement membranes, pericapsular fibrosis, increased numbers of cells in the glomerular tuft, mild thickening of capillary walls and glomerular mesangial matrix increase are early changes, which progress to glomerular sclerosis and/or atrophy with cystic dilatation of Bowman's space.

Hyalinization of the walls of small blood vessels and widespread mineralization of tubules, basement membranes, and necrotic epithelial cells are present in the severe stage of the disease.

Scoring Criteria: Rat Chronic Renal Disease

Score

- |                 |  |
|-----------------|--|
| 1<br>(trace)    | Occasional aggregates of lymphocytes are present or adjacent to small blood vessels primarily located in the corticomedullary junctions. Low numbers of lymphocytes may be present in the interstitium between tubules. An occasional tubule may contain a hyaline cast or be dilated. Mineralization may be minimally present.  |
| 2<br>(mild)     | From a few to several tubules may be dilated and/or contain hyaline material. Tubular epithelium may have degenerative changes. Thickening may be present in the region of tubular and Bowman's capsular basement membranes. Minimal interstitial fibrosis may be present around Bowman's capsule and tubules. Glomeruli may be hypercellular and a rare atrophic glomerulus may be present. Increased numbers of lymphocytes may be present in the interstitium. The renal capsule is still smooth. Changes may involve up to one fourth of the area examined.  |
| 3<br>(moderate) | Numerous tubules may be dilated or contain hyaline material. Occasional tubules may be either cystic or atrophied. Tubular regeneration may be apparent. Interstitial fibrosis is present as is periglomerular and peritubular basement membrane thickening. Glomerular tufts may have thickening of capillary loops, increased mesangial matrix, increased cellularity and occasional areas of sclerosis. Occasional glomeruli may be completely sclerotic or atrophied with or without cystic dilatation of Bowman's space. Capsular surfaces can be mildly irregular and up to one half of the area examined may be involved. |

Score

4  
(marked)      Tubular dilatation and hyaline casts are spread throughout the section. Renal tubular necrosis and widespread mineralization may be present. Interstitial fibrosis will be apparent throughout the cortex. Cystic tubules and Bowman's spaces will be numerous. Glomerular changes will be apparent and widespread. Capsular surfaces will be irregular. Hyalinization of small vessel walls may be apparent.

CARDIOMYOPATHY OF THE FISCHER F344 RAT

Cardiomyopathy is a common disease of aging F344 rats. Younger rats may have a mild to moderate focal myocarditis. As the rats age the disease progresses to myocardial degeneration characterized by vacuolation and atrophy of muscle fibers. This is followed by fibrosis and loss of myofiber. All portions of the heart are not uniformly affected.

## Grading of Cardiomyopathy

Score

1  
(trace)      From one to five small (2 mm in diameter) foci of lymphocytic infiltrates between myocardial fibers or around vessels in the myocardium.

2  
(mild)      From 6 to 10 foci of lymphocytic infiltration and/or minimal to mild vacuolar changes in cardiomyofibers. Fibrosis that includes less than one-quarter section.

3  
(moderate)      More than 10 foci of lymphocytic infiltration. Moderate to severe vacuolation of cardiomyofibers. Minimal to mild myofiber atrophy. Minimal to mild fibrosis in not more than one half of section.

4  
(marked)      Greater than one third of the section involved. Moderate to severe myofiber atrophy and fibrosis.

HEPATITIS

Hepatitis consists of random, multifocal, small aggregates of lymphocytes, PMN, mononuclear and macrophage within the hepatic parenchyma. Hepatocellular degeneration and loss may accompany this change. Minimal to severe 3 foci-minimal.

BILE DUCT HYPERPLASIA

Aging F344 rats frequently have foci of increased numbers of bile ducts in portal areas. Early lymphocytic pericholangitis is seen. Later bile duct proliferation is apparent. Fibrosis may or may not ensue.

Scoring Bile Duct Hyperplasia

Score

1 (trace)	1 to 3 portal areas have hyperplastic bile ducts.
2 (mild)	4 to 9 portal areas have hyperplastic bile ducts.
3 (moderate)	More than 9 portal areas have hyperplastic bile ducts. Pericholangiolar fibrosis and minimal sclerosis are present.
4 (marked)	Pericholangiolar fibrosis is from moderate to severe, with from mild to severe sclerosis in addition to hyperplasia.

NONNEOPLASTIC FOCI AND AREAS OF CELLULAR ALTERATIONS IN RAT LIVERS

Three distinctive types of cellular alteration called "foci" or "areas" may be present in rat livers. They are more common in older rats, but they can be seen in rats less than one year old. These lesions are named for the morphology of their cellular composition which may be clear cell, acidophilic (ground glass) and basophilic. These lesions are usually uniform in cell type, but they may occasionally contain mixtures of cell types.

A lesion smaller than or equal to the size of a lobule is called a focus. A lesion larger than a lobule is called an area. The architectured pattern of the lesion varies little from the normal. The cellular appearance and staining reaction within the lesion is distinctly different from the adjacent normal cells. Hepatic cords of the lesion merge imperceptibly with those of the surrounding tissue without compressing them.

Foci and areas of cellular alteration can occur singly or in multiples, and the types can occur singly or in any combination. Their distribution throughout the liver is not uniform, and they may coexist with any other possible type of hepatic lesion.

#### Clear Cell Focus (area)

Appears as an area of clear pale cells sharply delineated from surrounding liver tissue. The cells have an empty zone around the nucleus which contains glycogen. Cells may be enlarged or of normal cell size.

#### Acidophilic Cell Focus (area)

Appears as an acidophilic staining area and the cellular cytoplasm has the appearance of ground glass. There is usually cellular enlargement with enlarged nuclei and prominent nucleoli. Inclusions may be present in the cytoplasm. The cords may be slightly irregular.

#### Basophilic Cell Focus (area)

Appears as an area of basophilic staining cells which are smaller than normal. The plates may be tortuous due to increased numbers of cells.

#### Mixed Cell Focus (area)

The mixed cell focus lesion may contain mixtures of any of the three types described previously.

All types of foci and areas will be considered equal for scoring purposes. An acidophilic focus and a basophilic focus would be counted as two foci.

Score

- |                 |  |
|-----------------|--|
| 1<br>(trace)    | One focus.   |
| 2<br>(mild)     | Two to four foci - or - one area alone or in combination with from one to four foci.                         |
| 3<br>(moderate) | Five to eight foci - or - two to three areas alone or two areas in combination with from one to four foci.   |
| 4<br>(marked)   | Eight or more foci - or - four or more areas alone or three areas in combination with from one to four foci. |

CHARACTERIZATION OF THE LESION PRODUCED LOCALLY BY  
BUCRYLATE®

The Bucrylate® is surrounded by a capsule of fibrous connective tissue. Inflammatory responses may or may not be present; however, when present, inflammation is characterized by macrophages and multinucleated giant cells adjacent to the Bucrylate®. Some small regions of the hepatic capsular surface are surrounded and sequestered by fibrous tissue. The hepatic tissue in these areas is usually atrophied and only a few islands of hepatocytes or an occasional bile duct remains.

Where the liver is adhered to adjacent structures, such as diaphragm, abdominal wall or intestine, the Bucrylate® is sequestered by fibrous connective tissue. The adjacent structures are joined by this fibrous tissue.

This lesion will be reported only as present (+) or absent (-).

MINERALIZATION OF PULMONARY ARTERIES AND AORTA

Focal, dense mineral deposits are frequently observed in the larger pulmonary arteries of F344 and other strains of rats. They are located beneath the endothelium in the vessel wall. Their etiology is unknown and they are not considered clinically important.

Scoring will be as follows:

Score

- |                 |  |
|-----------------|--|
| 1<br>(trace)    | A single small focus of mineral which produces minimal distortion of the vessel wall.  |
| 2<br>(mild)     | Two to three small foci which produce minimal distortion to the vessel wall.   |
| 3<br>(moderate) | Four or more small foci which distort the vessel wall minimally or one larger focus which causes moderate distortion of the vessel wall. |
| 4<br>(marked)   | More than one large focus which causes moderate distortion of the vessel wall.   |

TUMORS

Generally tumors will be reported as being present in a tissue. Severity is not indicated.

ATRIOCAVAL EPITHELIAL MESOTHELIOMA

Atriocaval epithelial mesothelioma is an infiltrative tumor of the myocardium. It is composed of glandular acini and anastomosing tubules lined primarily by cuboidal epithelial cells. The neoplastic structures may extend to the endocardial surface and are frequently filled with blood, blood clots, hemoglobin crystals and degenerating RBC's. The cells contain a modest amount of eosinophilic cytoplasm, round to oval nuclei with prominent nucleoli, and fine chromatin. The neoplastic cells may form clumps or sheets in some areas. Mitotic figures may be present in moderate numbers.

LARGE GRANULAR LYMPHOCYTE LEUKEMIA  
(MONONUCLEAR CELL LEUKEMIA)

Large granular lymphocyte leukemia is usually seen in peripheral blood late in the course of disease; leukocyte counts are usually less than 100,000/mm<sup>3</sup>. These cells may be seen in the blood vessels and sinusoids of various organs. They are characterized by dense pleomorphic nuclei and eosinophilic cytoplasm which is occasionally granular. Microscopic lesions are frequently found in the spleen, liver and lung. The kidney, heart and pancreas are less frequently involved. Lymph nodes may be infiltrated by neoplastic cells.

COMPOUND RELATED INFLAMMATORY REACTION

This lesion is quite similar regardless of location or organ involved. The Bucrylate® is surrounded by fibrous connective tissue. Usually there is a mild inflammatory response consisting of macrophages and multinucleated foreign body giant cells adjacent to the fibrous capsule. The presence of the material and associated fibrous reaction may cause secondary changes such as atrophy of parenchyma or compromise of circulation and its secondary consequences.

PITUITARY GLAND ADENOMA

Adenomas of the anterior pituitary gland are very common in aged F344 rats. These lesions vary greatly in size from small microscopic proliferations to large masses that compress adjacent brain tissue. The microscopic appearance and cellular morphology are also variable. Cells may be arranged in sheets, nests, or acini; they are usually nearly spherical cellular proliferations which compress adjacent normal pituitary tissue. The cellular component may be either acidophils, basophils or chromophobes with variable cellular pleomorphism and tinctorial characteristics. Most pituitary adenomas are quite vascular and vascular dilatation and hemorrhage are very common. Occasionally pituitary adenomas may be composed of two or more nodules, each having different cellular morphology.

ADRENAL GLAND CORTICAL ADENOMA

Adenomas of the adrenal cortex are very common in old F344 rats. These lesions vary greatly in size from small microscopic lesions to large masses which involve large areas of the cortex. Cortical adenomas are discrete areas of cellular proliferation of normal adrenal cortical cells, or they may vary considerably in size, staining characteristics, and cellular arrangement. Frequently cells in adenomas are highly vacuolated. Nuclei may be hyperchromatic and larger than normal. Few mitotic figures are present. Adrenal cortical adenomas are highly vascular, and sinusoidal dilatation and hemorrhage is common.

UTERUS-ENDOMETRIAL STROMAL POLYP

Endometrial stromal polyps are fairly common in older female F344 rats. These lesions consist of polypoid masses which protrude from the uterine wall into the uterine lumen. The mass is covered by typical endometrial surface epithelium which may be eroded in some areas. Relatively normal appearing uterine glands, some of which are dilated and cystic, are common. The glands are surrounded by a dense fibrovascular stroma containing abundant collagen and numerous blood vessels. Some smooth muscle cells may be present. Mitotic figures may be present in both stroma and epithelium but these are usually few in number. Focal ulceration of epithelium accompanied by inflammatory cell infiltration may be present.

TESTIS-MESOTHELIOMA

Mesotheliomas of the tunica vaginalis occur occasionally in the testes of male F344 rats. These lesions are located on the serosal surface of the testis or epididymis and are usually unilateral. They are composed of multiple, papillary fronds arising from the serosal surface. The papillary structures have a supporting connective tissue stalk containing blood vessels and are covered by mesothelial cells. The lining usually consists of a single layer of mesothelial cells, but occasionally these cells are piled up into small nodular proliferations. Mitotic figures are infrequent.

### Individual Animal Pathology Reports

The Pathology animal number is followed by a three digit toxicology "in-life" animal number in parenthesis. This Toxicology number is a shortened version of the 84D00--- numbering system referenced in the text and Appendix B. The dates of death on these reports for interim sacrifice females are recorded as 28 Jan 1985 when in fact the females were necropsied on 29 Jan 1985. All organs were weighed on the date the necropsy occurred. The date given under the organ weight section of each individual report is the date the hand recorded data were entered into the computer.

LETTERTMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 1 (Tox No. 1)  
DATE OF DEATH: 28-JAN-85

SEX: MALE  
STUDY DAY OF DEATH: 372  
DOSE GROUP: 1  
STUDY WEEK OF DEATH: 54  
SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 367.00 (GMS)

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY				
12-OCT-85	629/90	LIVER	10.122	2.7580 %	5.0941
12-OCT-85	629/90	KIDNEYS	2.153	0.5866 %	1.0835
12-OCT-85	629/90	ADRENAL GLANDS	0.061	0.0166 %	0.0307
12-OCT-85	629/90	TESTES	3.791	1.0330 %	1.9079
12-OCT-85	629/90	HEART	1.029	0.2804 %	0.5179
12-OCT-85	629/90	BRAIN	1.987	0.5414 %	1.0000
12-NOV-85	660/95	SPLEEN	0.641	0.1747 %	0.3226

<< GROSS ORGAN OBSERVATIONS >>  
KEYWORDS / PHRASES  
LIVER ADHERED TO DIAPHRAGM.

<< MICROSCOPIC TISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS  
LIVER

HEART  
-CARDIOMYOPATHY

LIVER  
-NOT SPECIFIED(TRACE)

LIVER  
-CAPSULAR FOREIGN GRANULOMATOUS REACTION  
-BILE DUCTULE EPITHELIAL HYPERPLASIA

KIDNEY  
-PROGRESSIVE RENAL DISEASE

PROSTATE  
-ACUTE SUPPURATIVE PROSTATITIS

NOT SPECIFIED(MILD)

GROSS FREE-TEXT COMMENTS

PRES

DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

PRINTED: 14-MAR-86  
STUDY NUMBER: GLPB3009  
STUDY START DATE: 23-JAN-84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC  
PAGE: 2

ANIMAL NUMBER: 2 (Tox No. 2)  
DATE OF DEATH: 28-JAN-85

SEX: MALE  
STUDY DAY OF DEATH: 372  
DOSE GROUP: 1  
STUDY WEEK OF DEATH: 54  
SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 369.00 (GMS)

<< O R G A N   W E I G H T S >>		RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME			
12-OCT-85	LIVER	10.592	2.8705 %	5.4711
12-OCT-85	KIDNEYS	2.170	0.5881 %	1.1209
12-OCT-85	ADRENAL GLANDS	0.068	0.0184 %	0.0351
12-OCT-85	TESTES	3.126	0.8472 %	1.6147
12-OCT-85	HEART	1.094	0.2965 %	0.5651
12-OCT-85	BRAIN	1.936	0.5247 %	1.0000
12-OCT-85	SPLEEN	0.686	0.1859 %	0.3543

<< G R O S S   O R G A N   O B S E R V A T I O N S >>  
ORGAN NAME      KEYWORDS / PHRASES      SEVERITY      GROSS FREE TEXT COMMENTS  
LIVER              ADHERED TO DIAPHRAGM.      PRESENT

<< M I C R O S C O P I C   T I S S U E   O B S E R V A T I O N S >>  
TISSUE / HISTOPATHOLOGIC FINDINGS      DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

TRACHEA      TISSUE IS MISSING

PARATHYROID      TISSUE IS MISSING

HEART      NOT SPECIFIED(TRACE)  
-CARDIOMYOPATHY

LIVER      NOT SPECIFIED (PRESENT)  
-CAPSULAR FOREIGN GRANULOMATOUS REACTION  
-BILE DUCTULE EPITHELIAL HYPERPLASIA  
KIDNEY      NOT SPECIFIED(MODERATE)

NOT SPECIFIED(TRACE)  
-PROGRESSIVE RENAL DISEASE

Brown--591

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 3  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 2 (TOX NO. 2)  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372  
SEX: MALE DOSE GROUP: 1  
STUDY WEEK OF DEATH: 54 SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 369.00 (GMS)

<< MICROSCOPIC TISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

JEJUNUM ..... TISSUE IS MISSING

Brown--592

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 4  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 3 (Tox No. 9)  
DATE OF DEATH: 28-JAN-85

SEX: MALE  
STUDY DAY OF DEATH: 372  
DOSE GROUP: 1  
STUDY WEEK OF DEATH: 54  
SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 387.00 (GMS)

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY				
12-OCT-85	629/90	LIVER	10.097	2.6090 %	5.3452
12-OCT-85	629/90	KIDNEYS	2.431	0.6282 %	1.2869
12-OCT-85	629/90	ADRENAL GLANDS	0.065	0.0168 %	0.0344
12-OCT-85	629/90	TESTES	3.101	0.8013 %	1.6416
12-OCT-85	629/90	HEART	1.058	0.2734 %	0.5601
12-OCT-85	629/90	BRAIN	1.889	0.4881 %	0.5601
12-OCT-85	629/90	SPLEEN	0.703	0.1817 %	0.3722

<< GROSS ORGAN OBSERVATIONS >>		SEVERITY	GROSS TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
LIVER	ADHERED TO OMENTUM.	PRESENT	1/4 OF DIAPHRAMATIC SURFACE. SUBCUTANEOUS AT DIAPHRAM, .5 X 1CM.
SKIN	CYST(S)	PRESENT	

<< MICROSCOPIC FINDINGS >>		OBSERVATIONS	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
TISSUE / HISTOPATHOLOGIC FINDINGS			

HEART  
-CARDIOMYOPATHY  
NOT SPECIFIED(TRACE)

LIVER  
-CAPSULAR FOREIGN GRANULOMATOUS REACTION  
-BILE DUCTULE EPITHELIAL HYPERPLASIA  
-HEPATITIS  
NOT SPECIFIED (PRESENT)  
NOT SPECIFIED(WILD)  
NOT SPECIFIED(TRACE)

KIDNEY  
-PROGRESSIVE RENAL DISEASE  
NOT SPECIFIED(TRACE)

PANCREAS  
NOT SPECIFIED(TRACE)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

Brown--594

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

PRINTED: 14-MAR-86

PAGE: 5

STUDY DATE: 23-JAN-84

DOSE GROUP: 1

SACRIFICE STATUS: INTERIM SACRIFICE 1

STUDY WEEK OF DEATH: 54

TERMINAL BODY WEIGHT: 387.00 (GMS)

<< MICROSCOPIC FINDINGS

TISSUE / HISTOPATHOLOGIC FINDINGS

PANCREAS  
PERITONITIS

MAMMARY GLANDS

NOT SPECIFIED(TRACE)

TISSUE IS MISSING

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

PRINTED: 14-MAR-86  
PAGE: 6  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 4 (Tox No. 10)  
DATE OF DEATH: 28-JAN-85

STUDY DAY OF DEATH: 372

SEX: MALE

DOSE GROUP: 1

SACRIFICE STATUS: INTERIM SACRIFICE 1

STUDY WEEK OF DEATH: 54

TERMINAL BODY WEIGHT: 404.00 (GMS)

<< ORGAN WEIGHTS >>		ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY	LIVER	10.995	2.7215 %	5.5869	LOW
12-OCT-85	629/90	KIDNEYS	2.505	0.6200 %	1.2729	OK
12-OCT-85	629/90	ADRENAL GLANDS	0.052	0.0129 %	0.0264	OK
12-OCT-85	629/90	TESTES	3.186	0.7886 %	1.6189	HIGH
12-OCT-85	629/90	HEART	1.499	0.3710 %	0.7617	OK
12-OCT-85	629/90	BRAIN	1.968	0.4871 %	1.0000	OK
12-OCT-85	629/90	SPLEEN	0.661	0.1636 %	0.3359	HIGH

ORGAN NAME	<< GROSS ORGAN OBSERVATIONS KEYWORDS / PHRASES	SEVERITY	GROSS FREE-TEXT COMMENTS
LIVER	ADHERED TO DIAPHRAGM.	PRES	
EYES & OPTIC N.	IRREGULAR EYE SURFACE.	PRES	BILATERAL

TISSUE / HISTOPATHOLOGIC FINDINGS	TISSUE	OBSERVATIONS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
ESOPHAGUS		TISSUE IS MISSING
THYMUS		TISSUE IS MISSING
LIVER	-CAPSULAR FOREIGN GRANULOMATOUS REACTION -BILE DUCTULE EPITHELIAL HYPERPLASIA -HEPATITIS -NECROSIS	NOT SPECIFIED (PRESENT) NOT SPECIFIED(MODERATE) NOT SPECIFIED(MILD) NOT SPECIFIED(TRACE)
KIDNEY	-PROGRESSIVE RENAL DISEASE	NOT SPECIFIED(TRACE)
PROSTATE		

LETTERMAN ARMY INSTITUTE OF RESEARCH  
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SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 4 (TOX NO. 10) SEX: MALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

TISSUE / HISTOPATHOLOGIC FINDINGS  
MICROSCOPIC FINDINGS

PROSTATE

-ACUTE SUPPURATIVE PROSTATITIS

JEJUNUM

RECTUM

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC  
PRINTED: 14-MAR-86  
PAGE: 7

SACRIFICE STATUS: INTERIM SACRIFICE 1  
DOSE GROUP: 1  
STUDY WEEK OF DEATH: 54  
TERMINAL BODY WEIGHT: 404.00 (GMS)

<< MICROSCOPIC TISSUE OBSERVATIONS >>

DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NOT SPECIFIED(TRACE)

TISSUE IS MISSING

TISSUE IS MISSING

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LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 8

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 5 (Tox No. 13)  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

SEX: MALE DOSE GROUP: 1  
STUDY WEEK OF DEATH: 54 SACRIFICE STATUS: INTERIM SACRIFICE 1

TERMINAL BODY WEIGHT: 407.00 (GMS)

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY	ORGAN NAME			
12-OCT-85	629/90	LIVER	12.565	3.0872 %	6.9458
12-OCT-85	629/90	KIDNEYS	2.507	0.6160 %	1.3858
12-OCT-85	629/90	ADRENAL GLANDS	0.093	0.0229 %	0.0514
12-OCT-85	629/90	TESTES	3.344	0.8216 %	1.8485
12-OCT-85	629/90	HEART	1.211	0.2975 %	0.6694
12-OCT-85	629/90	BRAIN	1.809	0.4445 %	1.0000
12-OCT-85	629/90	SPLEEN	0.758	0.1862 %	0.4190

ORGAN NAME	<< GROSS ORGAN OBSERVATIONS >>	SEVERITY	GROSS FREE TEXT COMMENTS
LIVER	ADHERED TO OMENTUM.	PRESENT	

TISSUE / HISTOPATHOLOGIC FINDINGS	<< MICROSCOPIC TISSUE OBSERVATIONS >>	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

TRACHEA		TISSUE IS MISSING
SALIVARY GLAND		TISSUE IS MISSING
THYMUS		TISSUE IS MISSING
LYMPH NODES		TISSUE IS MISSING
LIVER		NOT SPECIFIED (PRESENT)
	-CAPSULAR FOREIGN GRANULOMATOUS REACTION	NOT SPECIFIED(MODERATE)
	-BILE DUCTULE EPITHELIAL HYPERPLASIA	NOT SPECIFIED(MODERATE)
	-TELANGIECTASIS	NOT SPECIFIED(MODERATE)
	-NECROSIS	NOT SPECIFIED(TRACE)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
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SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

PRINTED: 14-MAR-86  
PAGE: 9

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 5 (Fox No. 13) SEX: MALE

DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 DOSE GROUP: 1

STUDY WEEK OF DEATH: 54 SACRIFICE STATUS: INTERIM SACRIFICE 1

TERMINAL BODY WEIGHT: 407.00 (GMS)

<< MICROSCOPIC FINDINGS  
TISSUE / HISTOPATHOLOGIC FINDINGS

RECTUM

TISSUE IS MISSING

STOMACH  
SEROSAL  
FIBROSIS

NOT SPECIFIED (PRESENT)

SCIATIC NERVE

TISSUE IS MISSING

SKIN

COMPOUND PRESENT WITH ASSOCIATED INFLAMMATION\FIBROSIS  
AD SEBACIOUS

NOT SPECIFIED (PRESENT)  
TISSUE IS MISSING

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LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

PRINTED: 14-MAR-86  
PAGE: 10  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 6 (Tox No. 22) SEX: MALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

STUDY START DATE: 23-JAN-84  
DOSE GROUP: 1  
STUDY WEEK OF DEATH: 54 SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 420.00 (GMS)

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY	ORGAN NAME			
12-OCT-85	629/90	LIVER	12.495	2.9750 %	6.4407
12-OCT-85	629/90	KIDNEYS	2.620	0.6238 %	1.3505
12-OCT-85	629/90	ADRENAL GLANDS	0.059	0.0140 %	0.0304
12-OCT-85	629/90	TESTES	2.782	0.6624 %	1.4340
12-OCT-85	629/90	HEART	0.931	0.2217 %	0.4799
12-OCT-85	629/90	BRAIN	1.940	0.4619 %	1.0000
12-OCT-85	629/90	SPLEEN	0.696	0.1657 %	0.3588

<< GROSS ORGAN OBSERVATIONS >>  
ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE TEXT COMMENTS  
LIVER ADHERED TO DIAPHRAGM.

<< MICROSCOPIC FINDINGS TISSUE OBSEERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS TISSUE DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS  
THYMUS ..... TISSUE IS MISSING

LIVER .....  
-CAPSULAR FOREIGN GRANULOMATOUS REACTION NOT SPECIFIED (PRESENT)  
-BILE DUCTULE EPITHELIAL HYPERPLASIA NOT SPECIFIED(MARKED)  
-NECROSIS NOT SPECIFIED(MILD)

KIDNEY .....  
-PROGRESSIVE RENAL DISEASE NOT SPECIFIED(MILD)  
PANCREAS .....  
-ACINAR (EXOCRINE) ATROPHY NOT SPECIFIED(TRACE)

Brown--599

LETTERMAN ARMY INSTITUTE OF RESEARCH  
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SPECIES: RAT/FISCHER 344

ANIMAL NUMBER: 6 (TOX No. 22)  
DATE OF DEATH: 28 JAN 85 STUDY DAY OF DEATH: 372

TISSUE / HISTOPATHOLOGIC FINDINGS

RECTUM

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23 JAN 84

PRINTED: 14-MAR-86  
PAGE: 11  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC  
DOSE GROUP: 1  
SACRIFICE STATUS: INTERIM SACRIFICE 1  
STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 420.00 (GMS)  
<< MICROSCOPIC TISSUE OBSERVATIONS >>  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS  
.....  
RECTUM ..... TISSUE IS MISSING

Brown--600

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23 JAN 84

PRINTED: 14-MAR-86  
PAGE: 12  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 7 (Tox No. 24)  
DATE OF DEATH: 28-JAN-85

SEX: MALE  
STUDY DAY OF DEATH: 372  
DOSE GROUP: 1  
STUDY WEEK OF DEATH: 54  
SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 381.00 (GMS)

<< ORGAN WEIGHTS >>		ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME					
12-OCT-85	629/90	LIVER	14.292	3.7512 %	7.4866	OK
12-OCT-85	629/90	KIDNEYS	2.630	0.6903 %	1.3777	OK
12-OCT-85	629/90	ADRENAL GLANDS	0.063	0.0165 %	0.0330	OK
12-OCT-85	629/90	TESTES	3.273	0.8591 %	1.7145	HIGH
12-OCT-85	629/90	HEART	1.527	0.4008 %	0.7999	OK
12-OCT-85	629/90	BRAIN	1.909	0.5010 %	1.0000	OK
12-OCT-85	629/90	SPLEEN	0.738	0.1937 %	0.3866	HIGH

<< GROSS ORGAN OBSERVATIONS >>  
ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS  
LIVER ADHERED TO DIAPHRAGM AND STOMACH PRESENT

<< MICROSCOPIC FINDINGS TISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS TISSUE DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

ESOPHAGUS

LIVER TISSUE IS MISSING

LIVER  
-CAPSULAR FOREIGN GRANULOMATOUS REACTION  
-BILE DUCTULE EPITHELIAL HYPERPLASIA  
-HEPATITIS  
-NECROSIS

KIDNEY  
-PROGRESSIVE RENAL DISEASE

NOT SPECIFIED (TRACE)

NOT SPECIFIED (MARKED)

NOT SPECIFIED (TRACE)

NOT SPECIFIED (TRACE)

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LETTERMAN ARMY INSTITUTE OF RESE  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

PRINTED: 14-MAR-86  
PAGE: 13  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 8 (Tox . . . . .)  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

SEX: MALE DOSE GROUP: 1  
STUDY START DATE: 23-JAN-84  
SACRIFICE STATUS: INTERIM SACRIFICE 1  
STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 367.00 (GMS)

<< ORGAN WEIGHTS >>		RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME			
13-OCT-85	630/90 LIVER	10.914	2.9738 %	LOW
12-NOV-95	660/95 KIDNEYS	2.427	0.6613 %	OK
13-OCT-85	630/90 ADRENAL GLANDS	0.063	0.0172 %	OK
13-OCT-85	630/90 TESTES	3.035	0.8270 %	HIGH
13-OCT-85	630/90 HEART	1.209	0.3294 %	OK
13-OCT-85	630/90 BRAIN	2.036	0.5548 %	OK
13-OCT-85	630/90 SPLEEN	0.644	0.1755 %	HIGH

<< GROSS ORGAN OBSERVATIONS >>  
ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS  
LIVER ADHERED TO DIAPHRAGM. PRESENT DIFFUSE ADHESIONS TO PERITONEAL WALL.

<< MICROSCOPIC FINDINGS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS TISSUE OBSERVATION  
NOT SPECIFIED (TRACE)

ESOPHAGUS . . . . . TISSUE IS MISSING

HEART . . . . . NOT SPECIFIED (TRACE)

CARDIOMYOPATHY . . . . . NOT SPECIFIED (TRACE)

LIVER . . . . . CAPSULAR FOREIGN GRANULOMATOUS REACTION  
-BILE DUCTULE EPITHELIAL HYPERPLASIA

KIDNEY . . . . . PROGRESSIVE RENAL DISEASE

PROSTATE . . . . . NOT SPECIFIED (TRACE)

LETERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLPP83009  
STUDY START DATE: 23-JAN-84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 8 (Tox No. 31) SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: INTERIM SACRIFICE 1  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 367.00 (GMS)

<< MICROSCOPIC FINDINGS TISSUE TISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

PROSTATE

-ACUTE SUPPURATIVE PROSTATITIS

TESTES

-TUBULAR ATROPHY

PRINTED: 14-MAR-86  
PAGE: 14

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LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

ANIMAL NUMBER: 9 (TOX NO. 43) SEX: MALE  
DATE OF DEATH: 19-JUL-84 STUDY DAY OF DEATH: 179

DOSE GROUP: 1 SACRIFICE STATUS: SACRIFICED MORTIBUND  
STUDY WEEK OF DEATH: 26 TERMINAL BODY WEIGHT: 295.00 (GMS)

PRINTED: 14-MAR-86  
PAGE: 15  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME				
13-OCT-85	LIVER	10.104	3.4251 %	5.2956	OK
13-OCT-85	KIDNEYS	2.054	0.6963 %	1.0765	OK
13-OCT-85	ADRENAL GLANDS	0.068	0.0231 %	0.0356	HIGH
13-OCT-85	TESTES	2.837	0.9617 %	1.4869	HIGH
13-OCT-85	HEART	0.739	0.2505 %	0.3873	LOW
13-OCT-85	BRAIN	1.908	0.6468 %	1.0000	OK
13-OCT-85	SPLEEN	0.856	0.2902 %	0.4486	HIGH

<< GROSS ORGAN OBSERVATIONS >>		SEVERITY	GROSS FREE-TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
LIVER	ADHERED TO DIAPHRAGM. SMALL INTESTINE	PRESENT	LARGE LOBE PROXIMAL ILEUM DISTENDED WITH INGESTA AND ADHERED TO LEFT SIDE OF ABDOMINAL WALL. A FISTULA HAS FORMED FROM THE ADHERED ILEUM THROUGH THE ABDOMINAL MUSCULATURE INTO SUBCUTANEOUS TISSUE. SUBCUTANEOUS SPACE CONTAINED ENCAPSULATED MASS OF GREEN INGESTA

<< MICROSCOPIC FINDINGS		TISSUE OBSERVATIONS	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
LIVER	-CAPSULAR FOREIGN GRANULOMATOUS REACTION -BILE DUCTULE EPITHELIAL HYPERPLASIA -NECROSIS	NOT SPECIFIED (PRESENT) NOT SPECIFIED(MODERATE) NOT SPECIFIED(TRACE)	

TISSUE / HISTOPATHOLOGIC FINDINGS		LIVER	KIDNEY	ILEUM
		-CAPSULAR FOREIGN GRANULOMATOUS REACTION -BILE DUCTULE EPITHELIAL HYPERPLASIA -NECROSIS	-PROGRESSIVE RENAL DISEASE	NOT SPECIFIED(TRACE)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP 83009

PRINTED: 14-MAR-86  
PAGE: 16

STUDY START DATE: 23-JAN-84

ANIMAL NUMBER: 9 (Tox No. 43)

SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SACRIFICED MORIBUND

DATE OF DEATH: 19-JUL-84 STUDY DAY OF DEATH: 179 STUDY WEEK OF DEATH: 26 TERMINAL BODY WEIGHT: 295.00 (GMS)

<< MICROSCOPIC FINDINGS

TISSUE / HISTOPATHOLOGIC FINDINGS

ILEUM . . . . . COMPOUND RELATED INFLAMMATORY REACTION

NOT SPECIFIED (PRESENT)

CECUM . . . . . TISSUE IS MISSING

RECTUM . . . . . TISSUE IS MISSING

TONGUE . . . . . TISSUE IS MISSING

MAMMARY GLANDS . . . . . TISSUE IS MISSING

PITUITARY GLAND . . . . . TISSUE IS MISSING

Brown--605

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 17  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 10 (Tox No. 44)  
DATE OF DEATH: 28-JAN-85

SEX: MALE  
STUDY DAY OF DEATH: 372

DOSE GROUP: 1  
STUDY WEEK OF DEATH: 54

SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 381.00 (GMS)

<< ORGAN WEIGHTS >>		ORGAN	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY	ORGAN NAME				
13-OCT-85	630/90	LIVER	13.658	3.5848 %	7.1172	OK
13-OCT-85	630/90	KIDNEYS	2.501	0.6564 %	1.3033	OK
13-OCT-85	630/90	ADRENAL GLANDS	0.067	0.0176 %	0.0349	OK
13-OCT-85	630/90	TESTES	3.119	0.8186 %	1.6253	HIGH
13-OCT-85	630/90	HEART	1.221	0.3205 %	0.6363	OK
13-OCT-85	630/90	BRAIN	1.919	0.5037 %	1.0000	OK
13-OCT-85	630/90	SPLEEN	0.682	0.1790 %	0.3554	HIGH

<< GROSS ORGAN OBSERVATIONS >>

ORGAN NAME            KEYWORDS / PHRASES            SEVERITY GROSS-FREE-TEXT COMMENTS

LIVER                    ADHERED TO DIAPHRAGM.

<< MICROSCOPIC FINDINGS TISSUE / HISTOPATHOLOGIC FINDINGS >>

HEART                    -CARDIOMYOPATHY                    NOT SPECIFIED(TRACE)

LIVER                    -CAPSULAR FOREIGN GRANULOMATOUS REACTION  
                          -BILE DUCTULE EPITHELIAL HYPERPLASIA  
                          -NECROSIS

KIDNEY                    -PROGRESSIVE RENAL DISEASE                    NOT SPECIFIED(TRACE)

PRESERVE                    ADHESION ALSO INVOLVES OMENTUM AND PERITONEAL WALL.

OBSERVATIONS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LETERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 10 (TOX No. 44)  
DATE OF DEATH: 28-JAN-85

SEX: MALE  
STUDY DAY OF DEATH: 372  
DOSE GROUP: 1  
STUDY WEEK OF DEATH: 54  
SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 381.00 (GMS)

<< MICROSCOPIC FINDINGS  
TISSUE / HISTOPATHOLOGIC FINDINGS

ILLEUM ..... TISSUE IS MISSING  
RECTUM ..... TISSUE IS MISSING  
NOSE/TURBINATES ..... NOT SPECIFIED (TRACE)  
ACUTE INFLAMMATION

Brown--607

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER 344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 1  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 12 (LUX No. 48)  
SEX: MALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

DOSE GROUP: 1  
STUDY WEEK OF DEATH: 54  
SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 380.00 (GMS)

<< ORGAN WEIGHTS >>		ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY					
13-OCT-85	630/90	LIVER	10.871	2.8608 %	5.7671	LOW
13-OCT-85	630/90	KIDNEYS	2.459	0.6471 %	1.3045	OK
13-OCT-85	630/90	ADRENAL GLANDS	0.072	0.0189 %	0.0382	OK
13-OCT-85	630/90	TESTES	3.260	0.8579 %	1.7294	HIGH
13-OCT-85	630/90	HEART	1.242	0.3268 %	0.6589	OK
13-OCT-85	630/90	BRAIN	1.885	0.4961 %	1.0000	OK
13-OCT-85	630/90	SPLEEN	0.653	0.1718 %	0.3464	HIGH

<< GROSS ORGAN OBSERVATIONS >>		GROSS FREE-TEXT COMMENTS	
ORGAN NAME		SEVERITY	
LIVER		PRESENT 3 X 2CM AREA.	
<< HISTOPATHOLOGIC FINDINGS		OBSERVATIONS	
TISSUE / HISTOPATHOLOGIC FINDINGS		DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS	
HEART		NOT SPECIFIED(TRACE)	
-CARDIOMYOPATHY			
LIVER		NOT SPECIFIED (PRESENT)	
-CAPSULAR FOREIGN GRANULOMATOUS REACTION		NOT SPECIFIED(MILD)	
-BILE DUCTULE EPITHELIAL HYPERPLASIA		NOT SPECIFIED(TRACE)	
-HEPATOCYTIC VACUOLIZATION			
KIDNEY		NOT SPECIFIED(TRACE)	
-PROGRESSIVE RENAL DISEASE			
CECUM		NOT SPECIFIED (PRESENT)	
-COMPOUND RELATED INFLAMMATORY REACTION			
STOMACH			

LETTERMAN ARMY INSTITUTE OF RESEARCH  
 DIV OF RES SUPP, PATH SERV GP  
 SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
 STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

PAGE: 2

ANIMAL NUMBER: 12 (Tox No. 48) SEX: MALE DOSE GROUP: 1

DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54

SACRIFICE STATUS: INTERIM SACRIFICE 1 TERMINAL BODY WEIGHT: 380.00 (GMS)

OBSEERVATIONS >

DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

<< MICROSCOPIC FINDINGS >>

TISSUE / HISTOPATHOLOGIC FINDINGS

STOMACH

VILLUS ATROPHY AND/OR AUTOLYSIS

MAMMARY GLANDS

NOT SPECIFIED(TRACE)

TISSUE IS MISSING

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SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 17 (TOX NO. 65) SEX: MALE  
DATE OF DEATH: 03-APR-84 STUDY DAY OF DEATH: 72

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86

PAGE: 1

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

DOSE GROUP: 1

SACRIFICE STATUS: SACRIFICED MORIBUND

STUDY WEEK OF DEATH: 11

TERMINAL BODY WEIGHT: 245.00 (GMS)

Brown--610

<< O R G A N   W E I G H T S >>		RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME			
13-OCT-85	630/90	8.003	3.2665 %	4.4412 OK
13-OCT-85	630/90	1.743	0.7114 %	0.9673 OK
13-OCT-85	630/90	0.065	0.0265 %	0.0361 HIGH
13-OCT-85	630/90	2.860	1.1673 %	1.5871 HIGH
13-OCT-85	630/90	0.712	0.2906 %	0.3951 LOW
13-OCT-85	630/90	1.802	0.7355 %	1.0000 OK
13-OCT-85	630/90	0.942	0.3845 %	0.5228 HIGH
13-OCT-85	630/90			

<< G R O S S   O R G A N   O B S E R V A T I O N S >>  
ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

LIVER ADHERED DIAPHRAGM & PERITONEUM. PRESENT VENTRAL ABDOMEN  
PERITONEAL CAV. SMALL INTESTINE PRESENT ILEUM ADHERED TO THE PERINEUM AND COMMUNICATES THROUGH THE  
RECTUS ABDOMINIS MUSCLE AND FORMS A 4 X 4 X 4 CM SUBCUTANEOUS  
POCKET FILLED WITH INGESTA

<< M I C R O S C O P I C   T I S S U E   O B S E R V A T I O N S >>  
TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER CAPSULAR FOREIGN GRANULOMATOUS REACTION NOT SPECIFIED (PRESENT)  
PROSTATE ..... TISSUE IS MISSING  
COAG GL ..... TISSUE IS MISSING  
EDIDIDYMIS ..... TISSUE IS MISSING

LETTERMAN ARMY INSTITUTE OF RESEARCH  
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SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

PRINTED: 14-MAR-86  
PAGE: 2

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 17 (Ltx No. 65) SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: SACRIFICED MORIBUND  
DATE OF DEATH: 03-APR-84 STUDY DAY OF DEATH: 72 STUDY WEEK OF DEATH: 11 TERMINAL BODY WEIGHT: 245.00 (GMS)

<< MICROSCOPIC FINDINGS TISSUE OBSERVATIONS >  
TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

MAMMARY GLANDS .....

TISSUE IS MISSING

BONE, FEMUR .....

-HYPERPLASIA MYELOID

NOT SPECIFIED (PRESENT)

Brown--611

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 1  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 51 (TOX NO. 150) SEX: MALE  
DATE OF DEATH: 17-FEB-84 STUDY DAY OF DEATH: 26

DOSE GROUP: 1 SACRIFICE STATUS: SACRIFICED MORIBUND  
STUDY WEEK OF DEATH: 4 TERMINAL BODY WEIGHT: 152.00 (GMS)

<< O R G A N W E I G H T S >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY	ORGAN NAME			
13-OCT-85	630/90	LIVER	5.280	3.4737 %	OK
13-OCT-85	630/90	KIDNEYS	1.190	0.7829 %	OK
13-OCT-85	630/90	ADRENAL GLANDS	0.060	0.0395 %	HIGH
13-OCT-85	630/90	TESTES	2.110	1.3882 %	HIGH
13-OCT-85	630/90	HEART	0.510	0.3355 %	OK
13-OCT-85	630/90	BRAIN	1.620	1.0658 %	HIGH
13-OCT-85	630/90	SPLEEN	0.210	0.1382 %	HIGH

<< G R O S S O R G A N O B S E R V A T I O N S >>		SEVERITY	GROSS COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
PAWS/FEET	RED/BROWN CRUSTY MATERIAL.	PRES	PRESENT
LIVER	ADHERED TO DIAPHRAGM.	PRES	PRESENT
STOMACH	DILATED	PRES	ADHERED TO LIVER
PERITONEAL CAV.	SMALL INTESTINE	PRES	DISTENDED WITH FOOD
TISSUE / HISTOPATHOLOGIC FINDINGS	MICROSCOPIC TISSUE DISTRIBUTION (SEVERITY)	>>	SPECIAL COMMENTS
PARATHYROID	.....	.....	TISSUE IS MISSING
LIVER	-CAPSULAR FOREIGN GRANULOMATOUS REACTION	.....	NOT SPECIFIED (PRESENT)
PANCREAS	-PERITONITIS	.....	NOT SPECIFIED(TRACE)

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DIV OF RES SUPP, PATH SERV  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

PRINTED: 14-MAR-86  
PAGE: 2  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 51 (Tox No. 150)  
DATE OF DEATH: 17-FEB-84

STUDY START DATE: 23-JAN-84  
STUDY DAY OF DEATH: 26  
DOSE GROUP: 1  
STUDY WEEK OF DEATH: 4

SACRIFICE STATUS: SACRIFICED MORIBUND  
TERMINAL BODY WEIGHT: 152.00 (GMS)

<< MICROSCOPIC FINDINGS

CECUM

MAMMARY GLANDS

TISSUE

OBSTRUCTIONS

OBSERVATIONS

DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

TISSUE IS MISSING

Brown--613

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 1  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

Brown--614

ANIMAL NUMBER: 69 (TOX No. 3) SEX: MALE DOSE GROUP: 2

DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54

SACRIFICE STATUS: INTERIM SACRIFICE 1

TERMINAL BODY WEIGHT: 393.00 (GMS)

<< ORGAN WEIGHTS >>		RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME			
13-OCT-85	630/90	LIVER	10.077	2.5641 % LOW
13-OCT-85	630/90	KIDNEYS	2.463	0.6267 % OK
13-OCT-85	630/90	ADRENAL GLANDS	0.101	0.0257 % HIGH
13-OCT-85	630/90	TESTES	3.300	0.8397 % HIGH
13-OCT-85	630/90	HEART	1.455	0.3702 % OK
13-OCT-85	630/90	BRAIN	1.962	0.4992 % OK
13-OCT-85	630/90	SPLEEN	0.676	0.1720 % HIGH

<< GROSS ORGAN OBSERVATIONS >>		SEVERITY	GROSS FREE-TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
EYES & OPTIC N.	CORNEAL OPACITY	PRESENT	
LIVER	ADHERED TO OMENTUM.	PRESENT	ADHESION ON STERNUM .5 CM; ADHESION TO MESENTRY .5 CM
SKIN	INCISION SITE	PRESENT	THICKENED TISSUE

<< MICROSCOPIC FINDINGS		OBSERVATIONS	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
ESOPHAGUS	.....	.....	TISSUE IS MISSING
HEART	.....	.....	NOT SPECIFIED(TRACE)
CARDIOMYOPATHY	.....	.....	
SPLEEN	.....	.....	NOT SPECIFIED(TRACE)
FIBROSIS CAPSULAR	.....	.....	

LIVER	.....	.....	NOT SPECIFIED (PRESENT)
-CAPSULAR FOREIGN GRANULOMATOUS REACTION	.....	.....	NOT SPECIFIED(MILD)
-BILE DUCTULE	.....	.....	
THELIAL HYPERPLASIA	.....	.....	

KIDNEY

LETTERMAN ARMY INSTITUTE OF RESEARCH  
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SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 2  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 69 (Fox No. 3)  
SEX: MALE  
DATE OF DEATH: 28-JAN-85  
STUDY DAY OF DEATH: 372

DOSAGE GROUP: 2  
STUDY WEEK OF DEATH: 54  
SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 393.00 (GMS)

TISSUE / HISTOPATHOLOGIC FINDINGS  
MICROSCOPIC TISSUE OBSERVATIONS  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY  
-PROGRESSIVE RENAL DISEASE  
TESTES  
-INTERSTITIAL CELL HYPERPLASIA  
-B-MESOTHELIOMA

MAMMARY GLANDS  
EYES & OPTIC N.  
-PROGRESSIVE RETINAL ATROPHY

NOT SPECIFIED(TRACE)

NOT SPECIFIED(TRACE)  
(PRESENT)

TISSUE IS MISSING  
NOT SPECIFIED(MILD)

Brown--615

LETTERMAN ARMY INSTITUTE OF RESEARCH  
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SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 70 (TOX NO. 4)  
DATE OF DEATH: 28-JAN-85

PRINTED: 14-MAR-86  
PAGE: 3  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC  
DOSE GROUP: 2  
STUDY WEEK OF DEATH: 54  
SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 407.00 (GMS)

<< ORGAN WEIGHTS >>		ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME		
13-OCT-85	LIVER	10.906	2.6796 % LOW
13-OCT-85	KIDNEYS	2.465	0.6057 % OK
13-OCT-85	ADRENAL GLANDS	0.058	0.0143 % OK
13-OCT-85	TESTES	3.123	0.7673 % HIGH
13-OCT-85	HEART	0.946	0.2324 % LOW
13-OCT-85	BRAIN	1.891	0.4646 % LOW
13-OCT-85	SPLEEN	0.687	0.1688 % HIGH

<< GROSS ORGAN OBSERVATIONS >>		SEVERITY	GROSS FREE-TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
LIVER	ADHERED TO OMENTUM.	PRESENT	DIAPHRAGMATIC LOBE

<< MICROSCOPIC FINDINGS >>		OBSERVATIONS	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
TISSUE / HISTOPATHOLOGIC FINDINGS	ISSUE		
HEART	-CARDIOMYOPATHY	NOT SPECIFIED(TRACE)	

LIVER  
-CAPSULAR FOREIGN GRANULOMATOUS REACTION  
-BILE DUCTULE EPITHELIAL HYPERPLASIA

KIDNEY  
-PROGRESSIVE RENAL DISEASE

TESTES  
-INTERSTITIAL CELL HYPERPLASIA

PANCREAS  
NOT SPECIFIED(TRACE)

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SPECIES: RAT/FISCHER 344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
PRINTED: 14-MAR-86  
PAGE: 4

STUDY START DATE: 23-JAN-84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 70 (Tox No. 4)  
SEX: MALE  
DOSE GROUP: 2  
DATE OF DEATH: 28-JAN-85  
STUDY DAY OF DEATH: 372  
STUDY WEEK OF DEATH: 54  
SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 407.00 (GMS)

ISSUE / HISTOPATHOLOGIC FINDINGS  
<< MICROSCOPIC TISSUE OBSERVATIONS >>  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

PANCREAS

-ACINAR (EXOCRINE) ATROPHY

NO1 SPECIFIED (TRACE)

ADRENAL

-B- CORTICAL ADENOMA

(PRESENT)

Brown--617

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

ANIMAL NUMBER: 71 (TOX No. 5)

SEX: MALE

DOSE GROUP: 2

STUDY WEEK OF DEATH: 372

SACRIFICE STATUS: INTERIM SACRIFICE 1

DATE OF DEATH: 28-JAN-85

STUDY WEEK OF DEATH: 54

TERMINAL BODY WEIGHT: 391.00 (GMS)

PRINTED: 14-MAR-86  
PAGE: 5  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

Brown--618

<< ORGAN WEIGHTS >>		RELATIVE % OF ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY	ORGAN NAME			
13-OCT-85	630/90	LIVER	10.122	2.5887 %	5.0686
13-OCT-85	630/90	KIDNEYS	2.399	0.6136 %	1.2013
13-OCT-85	630/90	ADRENAL GLANDS	0.064	0.0164 %	0.0320
13-OCT-85	630/90	TESTES	2.962	0.7575 %	1.4832
13-OCT-85	630/90	HEART	1.177	0.3010 %	0.5894
13-OCT-85	630/90	BRAIN	1.997	0.5107 %	0.0000
13-OCT-85	630/90	SPLEEN	0.660	0.1688 %	HIGH

<< GROSS OBSERVATIONS >>		SEVERITY	GROSS FREE-TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
WHOLE BODY	NO GROSS LESIONS RECOGNIZED	PRESENT	

<< MICROSCOPIC FINDINGS		TISSUE	OBSERVATIONS	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
TISSUE / HISTOPATHOLOGIC FINDINGS				
ESOPHAGUS				TISSUE IS MISSING
HEART	-CARDIOMYOPATHY			NOT SPECIFIED(TRACE)

ESOPHAGUS

HEART

-CARDIOMYOPATHY

LIVER

-CAPSULAR FOREIGN GRANULOMATOUS REACTION  
-BILE DUCTULE EPITHELIAL HYPERPLASIA

KIDNEY

-PROGRESSIVE RENAL DISEASE

NOT SPECIFIED (PRESENT)  
NOT SPECIFIED(MARKED)

NOT SPECIFIED(MILD)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER 344

PRINTED: 14-MAR-86  
PAGE: 6  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 71 (Pox No. 5)  
SEX: MALE  
DATE OF DEATH: 28-JAN-85  
STUDY DAY OF DEATH: 372  
DOSE GROUP: 2  
STUDY WEEK OF DEATH: 54  
SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 391.00 (GMS)

TISSUE / HISTOPATHOLOGIC FINDINGS  
<< MICROSCOPIC TISSUE OBSERVATIONS >>  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

MAMMARY GLANDS .....

AD SEBACEOUS .....

TISSUE IS MISSING

TISSUE IS MISSING

Brown--619

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 72 (Tox No. 11) SEX: MALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

DOSE GROUP: 2  
STUDY WEEK OF DEATH: 54  
SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 360.00 (GMS)

PRINTED: 14-MAR-86  
PAGE: 7  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

<< ORGAN WEIGHTS >>		RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME			
13-OCT-85	LIVER	9.419	2.6164 %	4.8904
13-OCT-85	KIDNEYS	2.182	0.6061 %	1.1329
13-OCT-85	ADRENAL GLANDS	0.076	0.0211 %	0.0395
13-OCT-85	TESTES	2.960	0.8222 %	1.5369
13-OCT-85	HEART	1.132	0.3144 %	0.5877
13-OCT-85	BRAIN	1.926	0.5350 %	1.0000
13-OCT-85	SPLEEN	0.586	0.1628 %	0.3043

<< GROSS ORGAN KEYWORDS / PHRASES		OBSErvATIONS SEVERITY	OBSErvATIONS GROSS FREE-TEXT COMMENTS	OBSErvATIONS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
ORGAN NAME	ADHERED TO DIAPHRAGM.			
LIVER		PRESENT	1 CM ADHESION	

<< MICROSCOPIC FINDINGS		OBSErvATIONS TISSUE SEVERITY	OBSErvATIONS TISSUE DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
LIVER	CAPSULAR FOREIGN GRANULOMATOUS REACTION -BILE DUCTULE EPITHELIAL HYPERPLASIA		
KIDNEY	-PROGRESSIVE RENAL DISEASE	NOT SPECIFIED (TRACE) NOT SPECIFIED(MILD)	
CECUM		TISSUE IS MISSING	
RECTUM		TISSUE IS MISSING	
STOMACH	-GLANDULAR CYST(S)	NOT SPECIFIED(TRACE)	

LETTERMAN ARMY INSTITUTE OF RESEARCH  
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SPECIES: RAT/FISCHER-344

PRINTED: 14-MAR-86  
PAGE: 8  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 73 (TOX No. 12)

DATE OF DEATH: 28-JAN-85

SEX: MALE

STUDY DAY OF DEATH: 372

DOSE GROUP: 2

SACRIFICE STATUS: INTERIM SACRIFICE 1

STUDY WEEK OF DEATH: 54

TERMINAL BODY WEIGHT: 383.00 (GMS)

<< ORGAN WEIGHTS >>		ORGAN TO BRAIN WEIGHT RATIO	
DAY/WEEK OF STUDY DATE	ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT
13-OCT-85 630/90	LIVER	9.352	2.4418 %
13-OCT-85 630/90	KIDNEYS	2.319	0.6055 %
13-OCT-85 630/90	ADRENAL GLANDS	0.058	0.0151 %
13-OCT-85 630/90	TESTES	2.985	0.7794 %
13-OCT-85 630/90	HEART	0.982	0.2564 %
13-OCT-85 630/90	BRAIN	1.932	0.5044 %
12-NOV-85 660/95	SPLEEN	0.723	0.1888 %

<< GROSS ORGAN OBSERVATIONS >>

KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

LIVER ADHERED TO DIAPHRAGM.  
EYES & OPTIC N. IRREGULAR EYE SURFACE.

<< HISTOPATHOLOGIC FINDINGS >>  
TISSUE / MICROSCOPIC TISSUE OBSERVATIONS  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

PARATHYROID TISSUE IS MISSING

LIVER CAPSULAR FOREIGN GRANULOMATOUS REACTION  
-BILE DUCTULE EPITHELIAL HYPERPLASIA  
-HEPATITIS  
-FOCUS BASOPHILIC

KIDNEY PROGRESSIVE RENAL DISEASE

PROSTATE NOT SPECIFIED(TRACE)

Brown--621

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

PRINTED: 14-MAR-86  
PAGE: 9

ANIMAL NUMBER: 73 (TOX No. 12)

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 1

DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 383.00 (GMS)

TISSUE / HISTOPATHOLOGIC FINDINGS

PROSTATE .....  
-ACUTE SUPPURATIVE PROSTATITIS

NOT SPECIFIED(TRACE)

TESTES .....  
-INTERSTITIAL CELL HYPERPLASIA

NOT SPECIFIED(TRACE)

PANCREAS

-ACINAR (EXOCRINE) ATROPHY

AD SEBACEOUS

NOT SPECIFIED(MILD)

TISSUE IS MISSING

Brown--622

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 74 (Tox No. 14) SEX: MALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

DOSAGE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 1  
STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 405.00 (GMS)

<< O R G A N   W E I G H T S >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK	OF STUDY				
13-OCT-85	630/90	LIVER	12.039	2.9726 %	5.9488
13-OCT-85	630/90	KIDNEYS	2.796	0.6904 %	1.3862
13-OCT-85	630/90	ADRENAL GLANDS	0.087	0.0215 %	0.0431
13-OCT-85	630/90	TESTES	3.291	0.8126 %	1.6316
13-OCT-85	630/90	HEART	1.448	0.3575 %	HIGH
13-OCT-85	630/90	BRAIN	2.017	0.4980 %	OK
13-OCT-85	630/90	SPLEEN	0.740	0.1827 %	HIGH

<< G R O S S   O R G A N   O B S E R V A T I O N S >>  
ORGAN NAME            KEYWORDS / PHRASES            SEVERITY            GROSS FREE-TEXT COMMENTS

LIVER                  ADHERED TO PERITONEAL WALL            PRESENT            VENTRAL MARGIN OF LIVER 2 CM ADHESION  
EYES & OPTIC N.       IRREGULAR EYE SURFACE.            TRACE            LEFT

<< M I C R O S C O P I C   T I S S U E   O B S E R V A T I O N S >>  
TISSUE / HISTOPATHOLOGIC FINDINGS            DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

THYMUS

LIVER                  CAPSULAR FOREIGN GRANULOMATOUS REACTION            NOT SPECIFIED (PRESENT)  
                        -BILE DUCTULE EPITHELIAL HYPERPLASIA            NOT SPECIFIED(MILD)

KIDNEY                PROGRESSIVE RENAL DISEASE            NOT SPECIFIED(MILD)

TESTES                -INTERSTITIAL CELL HYPERPLASIA            NOT SPECIFIED(MILD)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER 344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 11  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 74 (Tox No. 14) SEX: MALE  
DATE OF DEATH: 28 JAN 85 STUDY DAY OF DEATH: 372

<< MICROSCOPIC FINDINGS

ISSUE / HISTOPATHOLOGIC FINDINGS

MAMMARY GLANDS

Brown--624  
DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 1  
STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 405.00 (GMS)  
ISSUE O B S E R V A T I O N S  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS  
.....  
[REDACTED]  
.....  
[REDACTED]  
.....  
[REDACTED]

ISSUE IS MISSING

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT

PRINTED: 14-MAR-86  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

PAGE: 12

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 75 (TOX No. 15)

SEX: MALE

DATE OF DEATH: 28-JAN-85

STUDY DAY OF DEATH: 372

DOSE GROUP: 2

STUDY WEEK OF DEATH: 54

SACRIFICE STATUS: INTERIM SACRIFICE 1

TERMINAL BODY WEIGHT: 419.00 (GMS)

<< ORGAN WEIGHTS >>

DAY/WEEK OF STUDY	ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT
13-OCT-85	LIVER	11.523	2.7501 %
13-OCT-85	KIDNEYS	2.684	0.6406 %
13-OCT-85	ADRENAL GLANDS	0.083	0.0198 %
13-OCT-85	TESTES	3.149	0.7516 %
13-OCT-85	HEART	1.536	0.3666 %
13-OCT-85	BRAIN	1.946	0.4644 %
13-OCT-85	SPLEEN	0.711	0.1697 %

<< GROSS ORGAN KEYWORDS / PHRASES >>

ADHERED TO DIAPHRAGM.

PRESENT 1 CM

<< MICROSCOPIC FINDINGS >>

LIVER

TISSUE / HISTOPATHOLOGIC FINDINGS

CAPSULAR FOREIGN GRANULOMATOUS REACTION

BILE DUCTULE EPITHELIAL HYPERPLASIA

HEPATITIS

FOCUS BASOPHILIC

NECROSIS

KIDNEY

PROGRESSIVE RENAL DISEASE

TESTES

INTERSTITIAL CELL HYPERPLASIA

OBSERVATIONS / DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER

NOT SPECIFIED (PRESENT)

NOT SPECIFIED(TRACE)

NOT SPECIFIED(MILD)

NOT SPECIFIED(TRACE)

NOT SPECIFIED(MILD)

LETERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 75 (Lot No. 1)  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

TISSUE / HISTOPATHOLOGIC FINDINGS  
<< MICROSCOPIC TISSUE >>

MAMMARY GLANDS

EYES & OPTIC N.  
-PROGRESSIVE RETINAL ATROPHY

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

DOSE GROUP: 2  
STUDY WEEK OF DEATH: 54  
SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 419.00 (GMS)

TISSUE IS MISSING

NOT SPECIFIED (NIL)

Brown--626

PRINTED: 14-MAR-86

PAGE: 13

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

LETERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER 344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLPB3009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 14  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 76 (Fox No. 16)

SEX: MALE

DOSE GROUP: 2

STUDY WEEK OF DEATH: 372

SACRIFICE STATUS: INTERIM SACRIFICE 1

STUDY OF DEATH: 28-JAN-85

TERMINAL BODY WEIGHT: 400.00 (GMS)

<< ORGAN WEIGHTS >>		RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME			
13-OCT-85	LIVER	11.870	2.9675 %	LOW
13-OCT-85	KIDNEYS	2.635	0.6587 %	OK
13-OCT-85	ADRENAL GLANDS	0.067	0.0168 %	OK
13-OCT-85	TESTES	3.157	0.7893 %	HIGH
13-OCT-85	HEART	1.058	0.2645 %	LOW
13-OCT-85	BRAIN	2.001	0.5002 %	OK
13-OCT-85	SPLEEN	0.680	0.1700 %	HIGH

<< GROSS ORGAN OBSERVATIONS >>  
ORGAN NAME      KEYWORDS / PHRASES      SEVERITY GROSS FREE-TEXT COMMENTS

LIVER      ADHERED TO DIAPHRAGM.  
EYES & OPTIC N.      FOCAL CORNEAL OPACITY

<< MICROSCOPIC TISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS      PRESENT      RIGHT WHITE SPOT MEASURES .5 X .5 CM  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER      CAPSULAR FOREIGN GRANULOMATOUS REACTION  
-BILE DUCTULE EPITHELIAL HYPERPLASIA

KIDNEY      PROGRESSIVE RENAL DISEASE

TESTES      -INTERSTITIAL CELL HYPERPLASIA

EYES & OPTIC N.  
-SCLERAL MINERALIZATION

Brown--627

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 15  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 77 (Tx No. 20) SEX: MALE DOSE GROUP: 2  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 54 GMS

<< ORGAN WEIGHTS >>		ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	DATE					
13-OCT-85	630/90	LIVER	9.807	2.5944 %	5.0578	LOW
13-OCT-85	630/90	KIDNEYS	2.394	0.6333 %	1.2347	OK
13-OCT-85	630/90	ADRENAL GLANDS	0.075	0.0198 %	0.0387	OK
13-OCT-85	630/90	TESTES	3.277	0.8669 %	1.6900	HIGH
13-OCT-85	630/90	HEART	0.981	0.2595 %	0.5059	LOW
13-OCT-85	630/90	BRAIN	1.939	0.5130 %	1.0000	OK
13-OCT-85	630/90	SPLEEN	0.697	0.1844 %	0.3595	HIGH

<< GROSS ORGAN OBSERVATIONS >>  
ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS  
LIVER ADHERED TO DIAPHRAGM. PRESENT 1 CM

<< MICROSCOPIC FINDINGS TISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS TISSUE DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER CAPSULAR FOREIGN GRANULOMATOUS REACTION  
-BILE DUCTULE EPITHELIAL HYPERPLASIA

KIDNEY PROGRESSIVE RENAL DISEASE

PROSTATE CHRONIC PROSTATITIS  
AD SEBACIOUS

NOT SPECIFIED (PRESENT)  
NOT SPECIFIED(MARKED)

NOT SPECIFIED(TRACE)  
NOT SPECIFIED(TRACE)

TISSUE IS MISSING

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER 344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

ANIMAL NUMBER: 78 (TOX NO. 29)  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

SEX: MALE DOSE GROUP: 2  
STUDY WEEK OF DEATH: 54 SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 350.00 (GMS)

<< ORGAN WEIGHTS >>		RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME			
13-OCT-85	630/90	9.667	2.7620 %	LOW
13-OCT-85	630/90	2.307	0.6591 %	OK
13-OCT-85	630/90	0.076	0.0217 %	HIGH
13-OCT-85	630/90	2.971	0.8489 %	HIGH
13-OCT-85	630/90	1.025	0.2929 %	LOW
13-OCT-85	630/90	1.836	0.5246 %	OK
13-OCT-85	630/90	0.602	0.1720 %	HIGH

<< GROSS ORGAN OBSERVATIONS >>  
ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS  
LIVER ADHERED-DIAPHRAGM & PERITONEUM. PRESENT

<< MICROSCOPIC FINDINGS TISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

PARATHYROID	TISSUE IS MISSING
LIVER	
-CAPSULAR FOREIGN GRANULOMATOUS REACTION	NOT SPECIFIED (PRESENT)
-BILE DUCTULE EPITHELIAL HYPERPLASIA	NOT SPECIFIED(MODERATE)
KIDNEY	
-PROGRESSIVE RENAL DISEASE	NOT SPECIFIED(TRACE)
RECTUM	TISSUE IS MISSING

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 78 (TOX NO. 29) SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 1  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 350.00 (GMS)

ISSUE / HISTOPATHOLOGIC FINDINGS

MAMMARY GLANDS .....

PITUITARY GLAND .....

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 17  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

Brown--630

MICROSCOPIC TISSUE OBSERVATIONS  
<< HISTOPATHOLOGIC FINDINGS >>  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

TISSUE IS MISSING

(PRESENT)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP. PATH SERV GP  
SPECIES: RAT/FISCHER 344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 1  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 132 (TOX NO. 194)  
DATE OF DEATH: 15-JAN-85 STUDY DAY OF DEATH: 359

SEX: MALE  
DOSE GROUP: 2  
STUDY WEEK OF DEATH: 52  
TERMINAL BODY WEIGHT: 373.00 (GMS)

<< ORGAN WEIGHTS >>		RELATIVE % OF ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	
13-OCT-85	LIVER	13.484	3.6150 %      6.6456 OK
630/90	KIDNEYS	2.826	0.7576 %      1.3928 OK
13-OCT-85	ADRENAL GLANDS	0.070	0.0188 %      0.0345 OK
630/90	TESTES	2.843	0.7622 %      1.4012 HIGH
13-OCT-85	HEART	5.518	1.4794 %      2.7196 HIGH
630/90	BRAIN	2.029	0.5440 %      1.0000 OK
13-OCT-85	SPLEEN	1.051	0.2818 %      0.5180 HIGH
630/90			
13-OCT-85			

<< GROSS ORGAN OBSERVATIONS >>		GROSS COMMENTS
ORGAN NAME	KEYWORDS / PHRASES	SEVERITY
LIVER	ADHERED TO PERITONEAL WALL	PRESENT
SPLEEN	WHITE FOCI	PRESENT
HEART	GROWTH(S) / MASS(ES)	PRESENT

<< MICROSCOPIC FINDINGS >>		MICROSCOPIC TISSUE OBSERVATIONS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
HEART	M- ATRIO-CAVAL EPITHELIAL MESOTHELIOMA	(PRESENT)
LUNGS	PULMONARY EDEMA . VASCULAR CONGESTION	NOT SPECIFIED (MILD) NOT SPECIFIED (PRESENT)
LIVER	CAPSULAR FOREIGN GRANULOMATOUS REACTION	NOT SPECIFIED (PRESENT)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 132 (TOX NO. 194) SEX: MALE  
DATE OF DEATH: 15-JAN-85 STUDY DAY OF DEATH: 359

TISSUE / HISTOPATHOLOGIC FINDINGS

LIVER .....  
· BILE DUCTULE EPITHELIAL HYPERPLASIA

MAMMARY GLANDS

· HYPERPLASIA AND/OR HYPERTROPHY OF THE ACINAR TISSUE

EYES & OPTIC N.

· CORNEAL VASCULARIZATION

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

DOSE GROUP: 2

SACRIFICE STATUS: FOUND DEAD

STUDY WEEK OF DEATH: 52

TERMINAL BODY WEIGHT: 373.00 (GMS)

<< MICROSCOPIC TISSUE

>>

OBSERVATIONS

DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

.....

LIVER .....  
NOT SPECIFIED(MILD)

MAMMARY GLANDS .....  
NOT SPECIFIED(TRACE)

EYES & OPTIC N. ....  
NOT SPECIFIED(TRACE)

Brown--632

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 137 (TOX No. 6)  
DATE OF DEATH: 28-JAN-85

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 1  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

SEX: MALE  
STUDY DAY OF DEATH: 372

DOSE GROUP: 3  
STUDY WEEK OF DEATH: 54

SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 391.00 (GMS)

<< ORGAN WEIGHTS >>		RELATIVE % OF ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY	ORGAN NAME			
13-OCT-85	630/90	LIVER	9.789	2.5036 %	4.9265
13-OCT-85	630/90	KIDNEYS	2.425	0.6202 %	1.2204
13-OCT-85	630/90	ADRENAL GLANDS	0.063	0.0161 %	0.0317
13-OCT-85	630/90	TESTES	3.213	0.8217 %	1.6170
13-OCT-85	630/90	HEART	1.102	0.2818 %	0.5546
13-OCT-85	630/90	BRAIN	1.987	0.5082 %	1.0000
13-OCT-85	630/90	SPLEEN	0.690	0.1765 %	0.3473

<< GROSS ORGAN OBSERVATIONS >>  
ORGAN NAME KEYWORDS / PHRASES  
EYES & OPTIC N. IRREGULAR EYE SURFACE.  
PRESENT LEFT MILD; RIGHT MINIMAL

<< MICROSCOPIC TISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS  
HEART  
-CARDIOMYOPATHY  
KIDNEY  
-PROGRESSIVE RENAL DISEASE  
PROSTATE  
-CHRONIC PROSTATITIS  
TESTES  
-INTERSTITIAL CELL HYPERPLASIA

NOT SPECIFIED(TRACE)

NOT SPECIFIED(TRACE)

NOT SPECIFIED(MILD)

NOT SPECIFIED(TRACE)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GIP83009

STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86

PAGE: 2

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 138 (Tox No. 7)

SEX: MALE

DATE OF DEATH: 28-JAN-85

STUDY DAY OF DEATH: 372

DOSE GROUP: 3

STUDY WEEK OF DEATH: 54

SACRIFICE STATUS: INTERIM SACRIFICE 1

TERMINAL BODY WEIGHT: 400.00 (GMS)

<< ORGAN WEIGHTS >>

DAY/WEEK OF STUDY	ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
13-OCT-85	LIVER	10.801	2.7002 %	5.4331	LOW
13-OCT-85	KIDNEYS	2.452	0.6130 %	1.2334	OK
13-OCT-85	ADRENAL GLANDS	0.071	0.0178 %	0.0357	OK
13-OCT-85	TESTES	3.166	0.7915 %	1.5926	HIGH
13-OCT-85	HEART	0.999	0.2498 %	0.5025	LOW
13-OCT-85	BRAIN	1.988	0.4970 %	1.0000	OK
13-OCT-85	SPLEEN	0.661	0.1653 %	0.3325	HIGH

<< GROSS ORGAN OBSERVATIONS >>

ORGAN NAME	KEYWORDS / PHRASES	SEVERITY	GROSS FREE-TEXT COMMENTS
LIVER	PROMINENT LOBULAR MARKINGS	PRESENT	

<< HISTOPATHOLOGIC FINDINGS >>

TISSUE / HISTOPATHOLOGIC FINDINGS	TISSUE	OBSERVATIONS	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
LIVER	-BILE DUCTULE EPITHELIAL HYPERPLASIA -FOCUS BASOPHILIC	NOT SPECIFIED(MODERATE) NOT SPECIFIED(TRACE)	
KIDNEY	-PROGRESSIVE RENAL DISEASE	NOT SPECIFIED(TRACE)	
TESTES	-INTERSTITIAL CELL HYPERPLASIA	NOT SPECIFIED(TRACE)	
MAMMARY GLANDS			TISSUE IS MISSING

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 138 (Tox No. 7) SEX: MALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

<< MICROSCOPIC FINDINGS

PITUITARY GLAND ..... AD SEBACIOUS .....

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

PRINTED: 14-MAR-86  
PAGE: 3

STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

PRINTED: 14-MAR-86  
PAGE: 3

ANIMAL NUMBER: 138 (Tox No. 7) SEX: MALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

<< HISTOPATHOLOGIC FINDINGS

TISSUE / HISTOPATHOLOGIC FINDINGS

MICROSCOPIC TISSUE OBSERVATIONS  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

PITUITARY GLAND ..... TISSUE IS MISSING

AD SEBACIOUS .....

Brown--635

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP 83009  
STUDY START DATE: 23-JAN-84

ANIMAL NUMBER: 139 (TOX NO. 8) SEX: MALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 1  
STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 323.00 (GMS)

PRINTED: 16-MAR-86  
PAGE: 4

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

<< O R G A N   W E I G H T S >>		ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	DATE					
13-OCT-85	630/90	LIVER	8.735	2.7043 %	4.9490	LOW
13-OCT-85	630/90	KIDNEYS	2.201	0.6814 %	1.2470	OK
13-OCT-85	630/90	ADRENAL GLANDS	0.079	0.0245 %	0.0448	HIGH
13-OCT-85	630/90	TESTES	2.261	0.7000 %	1.2810	HIGH
13-OCT-85	630/90	HEART	1.291	0.3997 %	0.7314	OK
13-OCT-85	630/90	BRAIN	1.765	0.5464 %	1.0000	OK
13-OCT-85	630/90	SPLEEN	0.616	0.1907 %	0.3490	HIGH

<< G R O S S   O R G A N   O B S E R V A T I O N S >>		SEVERITY	GROSS FREE-TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
EYES & OPTIC N.	IRREGULAR EYE SURFACE.	PRESENT	SIBLATERAL
SKIN	INCISION SITE	PRESENT	THICKENED TISSUE

<< M I C R O S C O P I C   T I S S U E   O B S E R V A T I O N S >>		DISTRIBUTION (SEVERITY)	SPECIAL COMMENTS
TISSUE / HISTOPATHOLOGIC FINDINGS			
PARATHYROID	.....	.....	TISSUE IS MISSING
SALIVARY GLAND	.....	.....	TISSUE IS MISSING
HEART -CARDIOMYOPATHY	.....	.....	NOT SPECIFIED (TRACE)
THYMUS	.....	.....	TISSUE IS MISSING
SPLEEN -FIBROSIS CAPSULAR	.....	.....	NOT SPECIFIED (TRACE)
LIVER	.....	.....	.....

LEUTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 5  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 139 (LUX No. 8) SEX: MALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

DOSAGE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 1  
STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 323.00 (GMS)

<< MICROSCOPIC FINDINGS  
TISSUE / HISTOPATHOLOGIC FINDINGS

LIVER .....  
-BILE DUCTULE EPITHELIAL HYPERPLASIA

NOT SPECIFIED(MODERATE)

KIDNEY  
-PROGRESSIVE RENAL DISEASE

NOT SPECIFIED(TRACE)

CECUM .....

TISSUE IS MISSING

RECTUM .....

TISSUE IS MISSING

COLON .....

TISSUE IS MISSING

SKELETAL MUSCLE ..

TISSUE IS MISSING

SCIATIC NERVE .....

TISSUE IS MISSING

PITUITARY GLAND ..  
.B- ADENOMA

(PRESENT)

Brown--637

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER 344

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86

PAGE: 6

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 14010X NO. 10  
DATE OF DEATH: 28-JAN-85

SEX: MALE

STUDY DAY OF DEATH: 372

DOSE GROUP: 3

SACRIFICE STATUS: INTERIM

SACRIFICE 1

STUDY WEEK OF DEATH: 54

TERMINAL BODY WEIGHT: 390.00 (GMS)

BROWN--638

<< ORGAN WEIGHTS >>	
DAY/WEEK OF STUDY	ORGAN NAME
13-OCT-85	LIVER
13-OCT-85	KIDNEYS
13-OCT-85	ADRENAL GLANDS
13-OCT-85	TESTES
13-OCT-85	HEART
13-OCT-85	BRAIN
13-OCT-85	SPLEEN

ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
LIVER	10.194	2.6138 %	5.2197	LOW
KIDNEYS	2.436	0.6246 %	1.2473	OK
ADRENAL GLANDS	0.049	0.0126 %	0.0251	OK
TESTES	3.257	0.8351 %	1.6677	HIGH
HEART	1.058	0.2713 %	0.5417	LOW
BRAIN	1.953	0.5008 %	1.0000	OK
SPLEEN	0.658	0.1687 %	0.3369	HIGH

<< GROSS ORGAN OBSERVATIONS >>  
ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS  
WHOLE BODY NO GROSS LESIONS RECOGNIZED PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS	TISSUE	OBSERVATIONS	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
ESOPHAGUS	.....	.....	TISSUE IS MISSING
THYMUS	.....	.....	TISSUE IS MISSING
LIVER	.....	.....	NOT SPECIFIED(TRACE)
KIDNEY	.....	.....	NOT SPECIFIED(TRACE)
·PROGRESSIVE RENAL DISEASE	.....	.....	.....
COAG GL	.....	.....	TISSUE IS MISSING
TESTES	.....	.....	.....

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23 JAN-84

PRINTED: 14-MAR-86  
PAGE: 7

ANIMAL NUMBER: 160 (TOX No. 16) SEX: MALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372  
DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 1  
STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 390.00 (GMS)

<< MICROSCOPIC FINDINGS  
TISSUE / HISTOPATHOLOGIC FINDINGS

TESTES  
-INTERSTITIAL CELL HYPERPLASIA

NOT SPECIFIED(TRACE)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 141 (Tox No. 17)

SEX: MALE

DOSE GROUP: 3

SACRIFICE STATUS: INTERIM SACRIFICE 1

STUDY WEEK OF DEATH: 54

TERMINAL BODY WEIGHT: 418.00 (GMS)

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<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME				
13-OCT-85	LIVER	11.924	2.8526 %	6.3561	LOW
13-OCT-85	KIDNEYS	2.736	0.6545 %	1.4584	OK
13-OCT-85	ADRENAL GLANDS	0.054	0.0129 %	0.0288	OK
13-OCT-85	TESTES	3.332	0.7971 %	1.7761	HIGH
13-OCT-85	HEART	1.124	0.2689 %	0.5991	LOW
13-OCT-85	BRAIN	1.876	0.4488 %	1.0000	LOW
13-OCT-85	SPLEEN	0.752	0.1799 %	0.4009	HIGH

<< GROSS ORGAN OBSERVATIONS >>  
ORGAN NAME KEYWORDS / PHRASES  
LIVER ADHERED TO DIAPHRAGM.

<< HISTOPATHOLOGIC FINDINGS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS  
LIVER  
-BILE DUCTULE EPITHELIAL HYPERPLASIA  
-FIBROSIS CAPSULAR NO COMPOUND

KIDNEY  
-PROGRESSIVE RENAL DISEASE

COAG GL  
TESTES  
-INTERSTITIAL CELL HYPERPLASIA

NOT SPECIFIED(MODERATE)  
NOT SPECIFIED(PRESENT)

NO1 SPECIFIED(MILD)  
TISSUE IS MISSING

NOT SPECIFIED(TRACE)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 141 (TOX No. 17) SEX: MALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372  
DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 1  
STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT:

<< MICROSCOPIC TISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

MAMMARY GLANDS

TISSUE IS MISSING

LETTERMAN ARMY INSTITUTE OF RESEARCH  
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SPECIES: RAT/FISCHER 344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

PRINTED: 14 MAR 86  
PAGE: 10  
STUDY START DATE: 23 JAN 84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 142 (LVS No. 18)  
SEX: MALE  
DATE OF DEATH: 23 JAN 85 STUDY DAY OF DEATH: 372  
DOSE GROUP: 3  
STUDY WEEK OF DEATH: 54  
TERMINAL BODY WEIGHT: 377.00 (GMS)

<< O R G A N W E I G H T S >>		DAY/WEEK OF STUDY	ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
13-OCT-85	630/90	LIVER		11.895	3.1552 %	5.7381	OK
13-OCT-85	630/90	KIDNEYS		2.575	0.6830 %	1.2422	OK
13-OCT-85	630/90	ADRENAL GLANDS		0.072	0.0191 %	0.0347	OK
13-OCT-85	630/90	TESTES		3.368	0.8934 %	1.6247	HIGH
13-OCT-85	630/90	HEART		1.155	0.3064 %	0.5572	OK
13-OCT-85	630/90	BRAIN		2.073	0.5499 %	1.0000	OK
13-OCT-85	630/90	SPLEEN		0.683	0.1812 %	0.3295	HIGH

<< G R O S S O R G A N O B S E R V A T I O N S >>  
ORGAN NAME KEYWORDS / PHRASES  
EYES & OPTIC N. FOCAL CORNEAL OPACITY  
LIVER ADHERED TO DIAPHRAGM.

<< M I C R O S C O P I C T I S S U E O B S E R V A T I O N S >>  
TISSUE / HISTOPATHOLOGIC FINDINGS  
LIVER .BILE DUCULE EPITHELIAL HYPERPLASIA  
.FIBROSIS CAPSULAR NO COMPOUND  
KIDNEY .PROGRESSIVE RENAL DISEASE

DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS  
LIVER NOT SPECIFIED(MILD)  
NOT SPECIFIED (PRESENT)  
KIDNEY NOT SPECIFIED(MILD)

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INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 143 (TOX No. 19)

STUDY DAY OF DEATH: 28-JAN-85

SEX: MALE

DATE OF DEATH: 28-JAN-85

DOSE GROUP: 3

STUDY WEEK OF DEATH: 372

SACRIFICE STATUS: INTERIM

SACRIFICE 1

TERMINAL BODY WEIGHT: 390.00 (GMS)

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME				
13-OCT-85	630/90	LIVER	10.068	2.5815	% LOW
13-OCT-85	630/90	KIDNEYS	2.373	0.6085	% OK
13-OCT-85	630/90	ADRENAL GLANDS	0.060	0.0154	% OK
13-OCT-85	630/90	TESTES	3.260	0.8359	% HIGH
13-OCT-85	630/90	HEART	1.176	0.3015	% OK
13-OCT-85	630/90	BRAIN	1.894	0.4856	% OK
13-OCT-85	630/90	SPLEEN	0.675	0.1731	% HIGH
13-OCT-85	630/90			0.3564	

<< GROSS ORGAN OBSERVATIONS >>		SEVERITY	GROSS FREE-TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
WHOLE BODY	NO GROSS LESIONS RECOGNIZED	PRESENT	

<< MICROSCOPIC FINDINGS		OBSERVATIONS	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
AORTA			TISSUE IS MISSING

LIVER	-BILE DUCTULE EPITHELIAL HYPERPLASIA -HEPATOCYTIC VACUOLIZATION	NOT SPECIFIED(MODERATE) NOT SPECIFIED(TRACE)
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KIDNEY	-PROGRESSIVE RENAL DISEASE	NOT SPECIFIED(TRACE)
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TESTES	-INTERSTITIAL CELL HYPERPLASIA	NOT SPECIFIED(TRACE)
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SPECIES: RAT/FISCHER 344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

PRINTED: 14-MAR-86  
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STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

STUDY START DATE: 23-JAN-84

STUDY END DATE: 28-JAN-85

ANIMAL NUMBER: 143 (Fox No. 14)

SEX: MALE  
DATE OF DEATH: 28-JAN-85  
DAY OF DEATH: 372

DOSE GROUP: 3

SACRIFICE STATUS: INTERIM SACRIFICE 1

STUDY WEEK OF DEATH: 54

TERMINAL BODY WEIGHT: 390.00 (GMS)

<< MICROSCOPIC FINDINGS  
TISSUE / HISTOPATHOLOGIC FINDINGS

AD SEBACIOUS

TISSUE IS MISSING

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LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 13

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 144 (Tox No. 21)  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

SEX: MALE

DOSE GROUP: 3

SACRIFICE STATUS: INTERIM SACRIFICE 1

STUDY WEEK OF DEATH: 54

TERMINAL BODY WEIGHT: 386.00 (GMS)

<< ORGAN WEIGHTS >>		RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME			
13-OCT-85	LIVER	10.907	2.8256 %	5.6251 LOW
12-NOV-85	KIDNEYS	2.509	0.6500 %	1.2940 OK
13-OCT-85	ADRENAL GLANDS	0.049	0.0127 %	0.0253 OK
13-OCT-85	TESTES	3.091	0.8008 %	1.5941 HIGH
13-OCT-85	HEART	1.282	0.3321 %	0.6612 OK
13-OCT-85	BRAIN	1.939	0.5023 %	1.0000 OK
13-OCT-85	SPLEEN	0.752	0.1948 %	0.3878 HIGH

<< GROSS ORGAN OBSERVATIONS >>		SEVERITY	GROSS FREE TEXT COMMENTS	ORGAN
ORGAN NAME	KEYWORDS / PHRASES			
EYES & OPTIC N.	IRREGULAR EYE SURFACE.	PRESENT	BILATERAL LINEAR INDENTATION OF CORNEA	

<< HISTOPATHOLOGIC FINDINGS		TISSUE	OBSE	SERVATI	N S	>> SPECIAL COMMENTS
TISSUE	HISTOPATHOLOGIC FINDINGS					
ESOPHAGUS						TISSUE IS MISSING
THYMUS						TISSUE IS MISSING
LIVER	BILE DUCTULE EPITHELIUM HYPERPLASIA -HEPATITIS					NOT SPECIFIED(MILD) NOT SPECIFIED(TRACE)
KIDNEY	PROGRESSIVE RENAL DISEASE					NOT SPECIFIED(TRACE)
TESTES	INTERSTITIAL CELL HYPERPLASIA					NOT SPECIFIED(MILD)

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SPECIES: RAT/FISCHER 3/4

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

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STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 144 (L<sup>o</sup>X No. 21) SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 1

DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT:

.....

<< MICROSCOPIC FINDINGS

.....

TISSUE / HISTOPATHOLOGIC FINDINGS

.....

SCIATIC NERVE

.....

TISSUE IS MISSING

BONE, FEMUR

.....

TISSUE IS MISSING

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SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 15  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 145 (TOX No. 23) SEX: MALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372  
DOSE GROUP: 3 STUDY WEEK OF DEATH: 54

SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 430.00 (GMS)

<< ORGAN WEIGHTS >>		ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	DATE					
13-OCT-85	630/90	LIVER	11.776	2.7386 %	6.3108	LOW
13-OCT-85	630/90	KIDNEYS	2.803	0.6519 %	1.5021	OK
13-OCT-85	630/90	ADRENAL GLANDS	0.087	0.0202 %	0.0466	HIGH
13-OCT-85	630/90	TESTES	2.596	0.6037 %	1.3912	OK
13-OCT-85	630/90	HEART	1.157	0.2691 %	0.6200	LOW
13-OCT-85	630/90	BRAIN	1.866	0.4340 %	1.0000	LOW
13-OCT-85	630/90	SPLEEN	0.716	0.1665 %	0.3837	HIGH

<< GROSS ORGAN OBSERVATIONS >>		PRESENT	SEVERITY	GROSS FREE-TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES			
WHOLE BODY	NO GROSS LESIONS RECOGNIZED			

<< MICROSCOPIC FINDINGS		PRESENT	SEVERITY	OBSERVATIONS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
TISSUE / HISTOPATHOLOGIC FINDINGS	TISSUE			
PARATHYROID				TISSUE IS MISSING
ESOPHAGUS				TISSUE IS MISSING
HEART				NOT SPECIFIED(MILD)
CARDIOMYOPATHY				
THYMUS				TISSUE IS MISSING
LIVER				NOT SPECIFIED(MILD)
-BILE DUCTULE EPITHELIAL HYPERPLASIA				NOT SPECIFIED(TRACE)
-HEPATITIS				
KIDNEY				

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SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 16

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 145 (TOX NO. 2)  
SEX: MALE  
DATE OF DEATH: 28 JAN 85 STUDY DAY OF DEATH: 372  
DOSE GROUP: 3  
STUDY WEEK OF DEATH: 54 SACRIFICE STATUS: INTERIM SACRIFICE 1  
TERMINAL BODY WEIGHT: 430.00 (GMS)

<< MICROSCOPIC FINDINGS  
TISSUE / HISTOPATHOLOGIC FINDINGS  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS  
>>

KIDNEY

PROGRESSIVE RENAL DISEASE

TESTES

INTERSTITIAL CELL HYPERPLASIA

ILEUM

SCIATIC NERVE

MAMMARY GLANDS

NOT SPECIFIED(MILD)

NOT SPECIFIED(TRACE)

TISSUE IS MISSING

TISSUE IS MISSING

TISSUE IS MISSING

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SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

PRINTED: 14-MAR-86  
PAGE: 17  
STUDY START DATE: 23-JAN-84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 146 (Tox No. 27)  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 1  
STUDY WEEK OF DEATH: 54 TERMINAL BDY WEIGHT: 378.00 (GMS)

<< ORGAN WEIGHTS >>		DAY/WEEK OF STUDY	ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
13-OCT-85	630/90	LIVER		10.731	2.8389 %	5.9026	LOW
13-OCT-85	630/90	KIDNEYS		2.568	0.6794 %	1.4125	OK
13-OCT-85	630/90	ADRENAL GLANDS		0.080	0.0212 %	0.0440	HIGH
13-OCT-85	630/90	TESTES		3.153	0.8341 %	1.7343	HIGH
13-OCT-85	630/90	HEART		1.086	0.2873 %	0.5974	LOW
13-OCT-85	630/90	BRAIN		1.818	0.4810 %	1.0000	OK
13-OCT-85	630/90	SPLEEN		0.651	0.1722 %	0.3581	HIGH

<< GROSS ORGAN KEYWORDS / PHRASES  
WHOLE BODY NO GROSS LESIONS RECOGNIZED PRESENT

<< HISTOPATHOLOGIC FINDINGS TISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS TISSUE OBSERVATIONS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

ESOPHAGUS ..... TISSUE IS MISSING  
EXORBITAL LACRIM ..... TISSUE IS MISSING  
LIVER ..... NOT SPECIFIED(TRACE)  
-BILE DUCTULE EPITHELIAL HYPERPLASIA  
-HEPATITIS ..... NOT SPECIFIED(TRACE)  
KIDNEY ..... NOT SPECIFIED(TRACE)  
-PROGRESSIVE RENAL DISEASE  
TESTES ..... NOT SPECIFIED(TRACE)  
-INTERSTITIAL CELL HYPERPLASIA ..... NOT SPECIFIED(TRACE)

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SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 18

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC  
ANIMAL NUMBER: 146 (Fox No. 27) SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 1  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 378.00 (GMS)

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC FINDINGS TISSUE OBSERVATIONS >>  
MAMMARY GLANDS ..... TISSUE IS MISSING  
EYES & OPTIC N. ....  
.CORNEAL MINERALIZATION NOT SPECIFIED(MILD)

Brown--650

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SPECIES: RAT/FISCHER-344

PRINTED: 14-MAR-86  
PAGE: 1  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 205 (LNO. No. 226)  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

SEX: FEMALE

DOSE GROUP: 1

STUDY WEEK OF DEATH: 54

SACRIFICE STATUS: INTERIM SACRIFICE 2

TERMINAL BODY WEIGHT: 238.00 (GMS)

<< O R G A N      W E I G H T S >>		ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME		
14-OCT-85	63/91	0.089	0.0374 %
14-OCT-85	63/91	10.829	6.5500 %
14-OCT-85	631/91	1.767	0.7424 %
14-OCT-85	631/91	0.069	0.0290 %
14-OCT-85	631/91	0.784	0.3294 %
14-OCT-85	631/91	1.643	0.6903 %
14-OCT-85	631/91	0.473	1.0000 %
14-OCT-85	631/91	0.1987 %	0.2879 HIGH

<< G R O S S      O R G A N      O B S E R V A T I O N S >>

ORGAN NAME      KEYWORDS / PHRASES      SEVERITY      GROSS FREE-TEXT COMMENTS

EYES & OPTIC N.  
EYES & OPTIC N.  
LIVER  
IRREGULAR EYE SURFACE.  
CORNEAL DISCOLORATION.  
ADHERED TO DIAPHRAGM AND STOMACH PRESENT

MILD  
PRESENT  
INVOLVES PERITONEAL WALL.

<< M I C R O S C O P I C      T I S S U E      O B S E R V A T I O N S >>

TISSUE / HISTOPATHOLOGIC FINDINGS      DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER  
-CAPSULAR FOREIGN GRANULOMATOUS REACTION  
-BILE DUCTULE EPITHELIAL HYPERPLASIA

URINARY BLADDER

EYES & OPTIC N.  
-CORNEAL MINERALIZATION

NOT SPECIFIED (PRESENT)  
NOT SPECIFIED(MILD)

TISSUE IS MISSING

NOT SPECIFIED(TRACE)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 2  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 206 (Fox No. 230) SEX: FEMALE DOSE GROUP: 1

DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 SACRIFICE STATUS: INTERIM SACRIFICE 2

TERMINAL BODY WEIGHT: 215.00 (GMS)

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY	ORGAN NAME			
14-OCT-85	631/91	OVARIES	0.075	0.0349 %	OK
14-OCT-85	631/91	LIVER	6.235	2.9000 %	3.4950
14-OCT-85	631/91	KIDNEYS	1.549	0.7205 %	0.8683
14-OCT-85	631/91	ADRENAL GLANDS	0.069	0.0321 %	0.0387
14-OCT-85	631/91	HEART	0.838	0.3898 %	HIGH
14-OCT-85	631/91	BRAIN	1.784	0.8298 %	OK
14-OCT-85	631/91	SPLEEN	0.434	0.2019 %	OK
14-OCT-85	631/91			0.2433	HIGH

<< GROSS ORGAN OBSERVATIONS >>

ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

LIVER ADHERED TO DIAPHRAGM AND STOMACH PRESENT ADHESION INVOLVES INTESTINES AND OMENTUM.

<< MICROSCOPIC TISSUE FINDINGS >>

TISSUE / HISTOPATHOLOGIC FINDINGS OBSERVATIONS >>  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

HEART CARDIOMYOPATHY NOT SPECIFIED(TRACE)

LIVER CAPSULAR FOREIGN GRANULOMATOUS REACTION NOT SPECIFIED (PRESENT)  
-BILE DUCTULE EPITHELIAL HYPERPLASIA  
-HEPATITIS NOT SPECIFIED(MILD)

PANCREAS PERITONITIS NOT SPECIFIED(TRACE)

STOMACH COMPOUND RELATED INFLAMMATORY REACTION NOT SPECIFIED (PRESENT)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF REL SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER 344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

PRINTED: 14-MAR-86  
PAGE: 1

STUDY START DATE: 23-JAN-84

DOSE GROUP: 1

SACRIFICE STATUS: FOUND DEAD

STUDY WEEK OF DEATH: 52

TERMINAL BODY WEIGHT:

248.00 (GMS)

ANIMAL NUMBER: 203 (TOX NO. 36)

SEX: FEMALE

DATE OF DEATH: 19 JAN 85

STUDY DAY OF DEATH: 363

<< C G A N W E I G H T S >>		ORGAN TO BRAIN WEIGHT RATIO
DAY/WEEK OF STUDY	ORGAN NAME	
14-OCT-85	631/91	0.198
14-OCT-85	OVARIES	0.0798 %
14-OCT-85	LIVER	14.778
14-OCT-85	KIDNEYS	1.824
14-OCT-85	ADRENAL GLANDS	0.111
14-OCT-85	HEART	1.074
14-OCT-85	BRAIN	1.791
14-OCT-85	SPLEEN	7.061
		2.8472 %
		3.9425

ORGAN NAME	<< G R O S S O R G A N KEYWORDS / PHRASES	O B S E R V A T I O N S	>> SEVERITY	GROSS FREE-TEXT COMMENTS
SPLEEN	ENLARGED (SPLENOMEGLY)	PRES	ENLARGED, FRIABLE, RUPTURED	
PITUITARY GLAND	CYST(S)	PRES	PRESENT CYSTIC, BLACK, APPROX 3MM	
LIVER	ADHERED TO DIAPHRAGM.	PRES	CONTAINED CLOTTED BLOOD	
PERITONEAL CAV.	FLUID-FILLED	PRES	ADHERED TO PERITONEAL CAVITY, RIGHT SIDE, RED, FRIABLE;	
PERITONEAL CAV.	SMALL INTESTINE	PRES	APPROX 40 CM FROM STOMACH	
LYMPH NODES	ENLARGED	PRES	ANTERIOR MEDIASTINAL, RED	

ISSUE / HISTOPATHOLOGIC FINDINGS	<< M I C R O S C O P I C TISSUE	O B S E R V A T I O N S	>> DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
LACRIMAL GLAND	.....	TISSUE IS MISSING	
SPLEEN	.....	TISSUE IS MISSING	(PRESENT)
PITUITARY GLAND	.....	NOT SPECIFIED (PRESENT)	

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 208 (Fox No. 236) SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: FOUND DEAD  
DATE OF DEATH: 19 JAN 85 STUDY DAY OF DEATH: 363 STUDY WEEK OF DEATH: 52 TERMINAL BODY WEIGHT: 248.00 (GMS)

ISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC ISSUE OBSERVATIONS >>  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

PITUITARY GLAND -  
-B- ADENOMA

(PRESENT)

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP85009

STUDY START DATE: 23 JAN 84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC  
PRINTED: 14-MAR-86  
PAGE: 2

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LEUTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF R&D, SUPP, PATH & RV GRP  
SERIALS: RAT/FISCHER-55

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23 JAN 84

ANIMAL NUMBER: 2019 (LON NO. 237)  
DATE OF DEATH: 23 JAN 85 STUDY DAY OF DEATH: 3/2 SEX: FEMALE  
DOSE GROUP: 1 STUDY STATUS: INTERIM SACRIFICE 2  
DATE OF DEATH: 23 JAN 85 STUDY DAY OF DEATH: 3/2 TERMINAL BODY WEIGHT: 232.00 (GMS)

DAY/ DATE OF STUDY	ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT		ORGAN STATUS
			0.105	0.0453 %	
15 OCT 85	OVARIES	7.030	3.0302 %	0.0626	OK
15 OCT 85	LIVER	1.767	0.7616 %	4.1895	OK
14 OCT 85	KIDNEYS	0.079	0.0341 %	1.0530	OK
14 OCT 85	ADRENAL GLANDS	0.779	0.3358 %	0.0471	HIGH
14 OCT 85	HEART	1.678	0.7233 %	0.4642	OK
14 OCT 85	BRAIN	0.7233	1.0000	0.2723	OK
14 OCT 85	SPLEEN	0.1970 %			HIGH

ORGAN NAME TYPES & ORIGIN	KEYWORDS / PHRASES	FOCAL CORNEAL OPACITY ADHERED TO DIAPHRAGM.	<< G R O S S   O R G A N   O B S E R V A T I O N S >>		DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
			PRESENT	PINPOINT PRESENT	
AORTA					

TISSUE / HISTOLOGIC FINDINGS	<< M I C R O S C O P I C   T I S S U E	O B S E R V A T I O N S	>> O B S E R V A T I O N S		DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
			PRESENT	PINPOINT PRESENT	
PARATHYROID					TISSUE IS MISSING
EXORBITAL LACKIM					TISSUE IS MISSING
AORTA					TISSUE IS MISSING
LIVER					NOT SPECIFIED (PRESENT)
	CAPSULAR FOREIGN GRANULOMATOUS REACTION				NOT SPECIFIED(TRACE)
	BILE DUCTULE EPITHELIAL HYPERPLASIA				NOT SPECIFIED(TRACE)
KIDNEY					

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF R&D SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER 344

ANIMAL NUMBER: 209 (F) ( )  
DATE OF DEATH: 28 JAN 85 STUDY DAY OF DEATH: 372  
ISSUE / HISTOPATHOLOGIC FINDINGS

KIDNEY ..... PROGRESSIVE RENAL DISEASE  
MAMMARY GLANDS .....  
EYES & OPTIC N. ..... CORNEAL MINERALIZATION

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83000

STUDY START DATE: 23 JAN 84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

PRINTED: 14 MAR 86  
PAGE: 4

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ANIMAL NUMBER: 209 (F) ( )  
SEX: FEMALE DOSE GROUP: 1  
STUDY WEEK OF DEATH: 372 SACRIFICE STATUS: INTERIM SACRIFICE 2  
TERMINAL BODY WEIGHT: 232.00 (GMS)

KIDNEY ..... NOT SPECIFIED(TRACE)

MAMMARY GLANDS ..... ISSUE IS MISSING

EYES & OPTIC N. ..... NOT SPECIFIED(TRACE)

LITTMAN ARMY INSTITUTE OF RESEARCH  
DIV OF KLS SUPP, PAH SERV GP  
SERIAL #: RAI/18187R 544

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: CLP83009

STUDY START DATE: 23-JAN-84

SEX: FEMALE

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

DOSE GROUP: 1

SACRIFICE STATUS: INTERIM SACRIFICE 2

STUDY WEEK OF DEATH: 54

TERMINAL BODY WEIGHT: 232.00 (GMS)

PRINTED: 14-MAR-86  
PAGE: 1

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<< ORGAN WEIGHTS >>  
DAY/WEIGHT  
OF STUDY      ORGAN NAME      ABSOLUTE ORGAN  
WEIGHT (GMS)      RELATIVE % OF  
BODY WEIGHT

14-OCT-85	631/91	OVARIES	0.096	0.0414 %
14-OCT-85	631/91	LIVER	7.129	3.0728 %
14-OCT-85	631/91	KIDNEYS	1.672	0.7207 %
14-OCT-85	631/91	ADRENAL GLANDS	0.112	0.0483 %
14-OCT-85	631/91	HEART	0.721	0.3108 %
14-OCT-85	631/91	BRAIN	1.719	0.7409 %
14-OCT-85	631/91	SPLEEN	0.552	0.2379 %

<< GROSS ORGAN OBSERVATIONS >>  
ORGAN NAME      KEYWORDS / PHRASES      ORGAN  
SEVERITY      GROSS FREE-TEXT COMMENTS  
EYES & OPTIC N.      IRREGULAR EYE SURFACE.  
LIVER      ABSCESS(ES)      TRACE      BILATERAL.  
STOMACH      GROWTH(S) / MASS(ES)  
CT CUM      MASS(ES)      PRESENT      SLIGHTLY RAISED ON DIAPHRAMATIC SURFACE, 3MM DIAMETER.  
CT CUM      ADHERENT TO OTHER ORGANS      PRESENT      3/4 X 1/2 X 1/2CM YELLOW CASEOUS MATERIAL.  
KIDNEY      PRESENT      1CM DIAMETER ON GREATER CURVATURE.  
LIVER      2.5MM NEAR JUNCTION OF CECUM AND COLON  
STOMACH      ADHERED TO COLON

<< MICROSCOPIC FINDINGS >>  
LIVER      CAPSULAR FOREIGN GRANULOMATOUS REACTION  
          BILE DUCTULE EPITHELIAL HYPERPLASIA  
KIDNEY      PROGRESSIVE RENAL DISEASE  
STOMACH      NOT SPECIFIED (PRESENT)  
          NOT SPECIFIED (TRACE)  
          NOT SPECIFIED (TRACE)

LETERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
PRINTED: 14-MAR-86  
PAGE: 2  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 211 (Fox No. 241) SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: INTERIM SACRIFICE 2  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 232.00 (GMS)

TISSUE / HISTOPATHOLOGIC FINDINGS  
<< MICROSCOPIC TISSUE OBSERVATIONS >  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

STOMACH .....,  
-COMPOUND RELATED INFLAMMATORY REACTION

MAMMARY GLANDS .....

NOT SPECIFIED (PRESENT)

TISSUE IS MISSING

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LETTERMAN ARMY INSTITUTE OF RESEARCH  
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SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 3  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 212 (Tox No. 258) SEX: FEMALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

SACRIFICE STATUS: INTERIM SACRIFICE 2  
STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 239.00 (GMS)

<< O R G A N   W E I G H T S >>		ORGAN ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY	ORGAN NAME			
14-OCT-85	631/91	OVARIES	0.093	0.0389 %	0.0552 OK
14-OCT-85	631/91	LIVER	8.690	3.6360 %	5.1573 OK
14-OCT-85	631/91	KIDNEYS	1.589	0.6649 %	0.9430 OK
14-OCT-85	631/91	ADRENAL GLANDS	0.081	0.0339 %	0.0481 HIGH
14-OCT-85	631/91	HEART	0.891	0.3728 %	0.5288 OK
14-OCT-85	631/91	BRAIN	1.685	0.7050 %	1.0000 OK
14-OCT-85	631/91	SPLEEN	1.214	0.5079 %	0.7205 HIGH

<< G R O S S   O R G A N   O B S E R V A T I O N S >>  
ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE TEXT COMMENTS  
LIVER ADHERED TO DIAPHRAGM. PRESENT INVOLVES PERITONEAL WALL WITH A FEW SMALL ADHESIONS TO SMALL INTESTINES.  
EYES & OPTIC N. FOCAL CORNEAL OPACITY PRESENT 1MM DIAMETER, BILATERAL.  
SPLEEN ENLARGED (SPLENOmegaly) MODERATE ABOUT TWICE NORMAL SIZE.  
JEJUNUM FIBROUS ADHESIONS (TAGS) PRESENT 4CM LENGTH ADHERED TOGETHER IN LOOP 30CM FROM STOMACH.  
ILEUM DILATATION MODERATE 10CM FROM JEJUNAL LESION.

<< M I C R O S C O P I C   T I S S U E   O B S E R V A T I O N S >>  
TISSUE / HISTOPATHOLOGIC FINDINGS TISSUE DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS  
PARATHYROID ..... TISSUE IS MISSING  
LUNGS ..... HYPERPLASTIC MODULE NOT SPECIFIED (TRACE)  
THYMUS ..... TISSUE IS MISSING  
SPLEEN .....

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 212 (Tox No. 258)  
DATE OF DEATH: 28-JAN-85

TISSUE / HISTOPATHOLOGIC FINDINGS

SPLEEN  
LYMPHOID HYPERPLASIA OF THE SPLENIC CORPUSCLES

LYMPH NODES

LYMPHOID HYPERPLASIA

LIVER

CAPSULAR FOREIGN GRANULOMATOUS REACTION  
BILE DUCTULE EPITHELIAL HYPERPLASIA  
HEPATITIS  
FOCUS BASOPHILIC  
HEPATOCYTIC VACUOLIZATION

JEJUNUM

COMPOUND RELATED INFLAMMATORY REACTION

SKIN

MAMMARY GLANDS

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

ANIMAL NUMBER: 212 (Tox No. 258)  
DATE OF DEATH: 28-JAN-85

<< MICROSCOPIC TISSUE

OBSEERVATIONS >>  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

PRINTED: 14-MAR-86  
PAGE: 4

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

DOSE GROUP: 1  
STUDY WEEK OF DEATH: 54  
TERMINAL BODY WEIGHT: 239.00 (GMS)

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LYMPHOID HYPERPLASIA OF THE SPLENIC CORPUSCLES

LYMPH NODES

LYMPHOID HYPERPLASIA

LIVER

CAPSULAR FOREIGN GRANULOMATOUS REACTION  
BILE DUCTULE EPITHELIAL HYPERPLASIA  
HEPATITIS  
FOCUS BASOPHILIC  
HEPATOCYTIC VACUOLIZATION

JEJUNUM

COMPOUND RELATED INFLAMMATORY REACTION

SKIN

MAMMARY GLANDS

NOT SPECIFIED(MODERATE)

NOT SPECIFIED(MODERATE)

NOT SPECIFIED(MODERATE)

NOT SPECIFIED(PRESENT)

NOT SPECIFIED(MILD)

NOT SPECIFIED(TRACE)

NOT SPECIFIED(TRACE)

NOT SPECIFIED(TRACE)

NOT SPECIFIED(PRESENT)

TISSUE IS MISSING

TISSUE IS MISSING

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DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 5  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 213 (TOX No. 259)  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

SEX: FEMALE DOSE GROUP: 1  
STUDY WEEK OF DEATH: 54 SACRIFICE STATUS: INTERIM SACRIFICE 2  
TERMINAL BODY WEIGHT: 224.00 (GMS)

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME				
14-OCT-85	631/91 OVARIES	0.102	0.0455 %	0.0601	OK
14-OCT-85	631/91 LIVER	6.644	2.9661 %	3.9151	LOW
14-OCT-85	631/91 KIDNEYS	1.629	0.7272 %	0.9599	OK
14-OCT-85	631/91 ADRENAL GLANDS	0.078	0.0348 %	0.0460	HIGH
14-OCT-85	631/91 HEART	0.753	0.3362 %	0.4437	OK
14-OCT-85	631/91 BRAIN	1.697	0.7576 %	1.0000	OK
14-OCT-85	631/91 SPLEEN	0.520	0.2321 %	0.3064	HIGH

ORGAN NAME	<< GROSS ORGAN OBSERVATIONS >>	SEVERITY	GROSS FREE-TEXT COMMENTS
EYES & OPTIC N.	FOCAL CORNEAL OPACITY	PRES	
EYES & OPTIC N.	OCULAR DISCHARGE	PRES	
LIVER	ADHERED TO DIAPHRAGM.	PRES	
UTERUS	HYDROMETRA	PRES	

TISSUE / HISTOPATHOLOGIC FINDINGS	<< MICROSCOPIC TISSUE OBSERVATIONS >>	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
PARATHYROID	TISSUE IS MISSING	NOT SPECIFIED(TRACE)

HEART .....  
-CARDIOMYOPATHY

LIVER .....  
-CAPSULAR FOREIGN GRANULOMATOUS REACTION  
-BILE DUCTULE EPITHELIAL HYPERPLASIA  
-FOCUS BASOPHILIC

KIDNEY .....

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DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER 344

INDIVIDUAL ANIMAL DATA REPORT

PRINTED: 14-MAR-86  
STUDY NUMBER: GIP83009  
STUDY START DATE: 23-JAN-84  
PAGE: 6  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 213 (TOX No. 259) SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: INTERIM SACRIFICE 2  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 224.00 (GMS)

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY	.....	NOT SPECIFIED(TRACE)
-PROGRESSIVE RENAL DISEASE		.....
JEJUNUM	.....	TISSUE IS MISSING
RECTUM	.....	TISSUE IS MISSING
MAMMARY GLANDS	.....	TISSUE IS MISSING

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LETTERMAN ARMY INSTITUTE OF RESEARCH  
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SPECIES: RAT/FISCHER-344

PRINTED: 14-MAR-86  
PAGE: 7  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23 JAN-84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 214 (TOX NO. 262)  
SEX: FEMALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

DOSE GROUP: 1  
STUDY WEEK OF DEATH: 54  
SACRIFICE STATUS: INTERIM SACRIFICE 2  
TERMINAL BODY WEIGHT: 210.00 (GMS)

<< ORGAN WEIGHTS >>		RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME			
14-OCT-85	631/91	0.098	0.0467 %	OK
14-OCT-85	631/91	7.189	3.4233 %	OK
14-OCT-85	631/91	1.504	0.7162 %	OK
14-OCT-85	631/91	0.062	0.0295 %	HIGH
14-OCT-85	631/91	0.643	0.3062 %	OK
14-OCT-85	631/91	1.806	0.8600 %	OK
14-OCT-85	631/91	0.491	0.2338 %	HIGH

<< GROSS ORGAN OBSERVATIONS >>		SEVERITY	GROSS FREE-TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
LIVER	ADHERED-DIAPHRAGM & PERITONEUM.	PRESENT	
EYES & OPTIC N.	IRREGULAR EYE SURFACE.	TRACE	

<< HISTOPATHOLOGIC FINDINGS		TISSUE DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
TISSUE	TISSUE	
ESOPHAGUS		TISSUE IS MISSING
LIVER	-CAPSULAR FOREIGN GRANULOMATOUS REACTION -BILE DUCTULE EPITHELIAL HYPERPLASIA -HEPATITIS -FOCUS BASOPHILIC	NOT SPECIFIED (PRESENT) NOT SPECIFIED(TRACE) NOT SPECIFIED(TRACE) NOT SPECIFIED(TRACE)
JEJUNUM		TISSUE IS MISSING

LEITERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 214 (TOX NO. 262) SEX: FEMALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

TISSUE / HISTOPATHOLOGIC FINDINGS  
RECTUM . . . . .

EYES & OPTIC N.  
· CORNEAL MINERALIZATION

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

PAGE: 8

PRINTED: 14-MAR-86  
STUDY GROUP: 1  
DOSE GROUP: 1  
STUDY WEEK OF DEATH: 54  
SACRIFICE STATUS: INTERIM SACRIFICE 2  
TERMINAL BODY WEIGHT: 210.00 (GMS)

<< M I C R O S C O P I C T I S S U E O B S E R V A T I O N S >>  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

RECTUM . . . . . TISSUE IS MISSING

EYES & OPTIC N.  
· CORNEAL MINERALIZATION

NOT SPECIFIED(TRACE)

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LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER 344

PRINTED: 14-MAR-86  
PAGE: 9  
STUDY NUMBER: GLP83009  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 215 (Tox No. 263)  
DATE OF DEATH: 28-JAN-85

STUDY START DATE: 23-JAN-84  
DOSE GROUP: 1  
STUDY DAY OF DEATH: 372  
SACRIFICE STATUS: INTERIM SACRIFICE 2  
STUDY WEEK OF DEATH: 54  
TERMINAL BODY WEIGHT: 199.00 (GMS)

<< O R G A N W E I G H T S >>		DAY/WEEK OF STUDY	ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
14-OCT-85	631/91		OVARIES	0.121	0.0608 %	0.0699	OK
14-OCT-85	631/91		LIVER	6.585	3.3090 %	3.8042	OK
14-OCT-85	631/91		KIDNEYS	1.482	0.7447 %	0.8562	OK
14-OCT-85	631/91		ADRENAL GLANDS	0.076	0.0382 %	0.0439	HIGH
14-OCT-85	631/91		HEART	0.712	0.3578 %	0.4113	OK
14-OCT-85	631/91		BRAIN	1.731	0.8698 %	1.0000	OK
14-OCT-85	631/91		SPLEEN	0.452	0.2271 %	0.2611	HIGH

<< G R O S S O R G A N O B S E R V A T I O N S >>		KEYWORDS / PHRASES	SEVERITY	GROSS FREE-TEXT COMMENTS
EYES & OPTIC N.		FOCAL CORNEAL OPACITY	PRES	RIGHT EYE, SEVERAL
SPLEEN		PROMINENT FIBROUS CAPSULE	TRACE	
LIVER		FIBROUS ADHESIONS (TAGS)	PRES	MULTIPLE ADHESIONS OF THE INTESTINES, LIVER AND OMENTUM.

<< M I C R O S C O P I C T I S S U E O B S E R V A T I O N S >>		MICROSCOPIC FINDINGS	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
LIVER		-CAPSULAR FOREIGN GRANULOMATOUS REACTION	NOT SPECIFIED (PRESENT)
		-HEPATITIS	NOT SPECIFIED(TRACE)

KIDNEY		-HEPATOCYTIC VACUOLIZATION	NOT SPECIFIED(TRACE)
		-PROGRESSIVE RENAL DISEASE	NOT SPECIFIED(MILD)

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LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 10  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 216 (Tox No. 265) SEX: FEMALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

DOSE GROUP: 1 SACRIFICE STATUS: INTERIM SACRIFICE 2  
STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 226.00 (GMS)

<< O R G A N W E I G H T S >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME				
14-OCT-85	631/91	0.098	0.0434 %	0.0568	OK
14-OCT-85	631/91	6.676	2.9540 %	3.8724	LOW
14-OCT-85	631/91	1.592	0.7044 %	0.9234	OK
14-OCT-85	631/91	0.088	0.0389 %	0.0510	HIGH
14-OCT-85	631/91	0.804	0.3558 %	0.4664	OK
14-OCT-85	631/91	1.724	0.7628 %	1.0000	OK
14-OCT-85	631/91	0.524	0.2319 %	0.3039	HIGH

<< G R O S S O R G A N O B S E R V A T I O N S >>		SEVERITY	GROSS FREE-TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
LIVER	ADHERED TO PERITONEAL WALL	PRESENT	

<< M I C R O S C O P I C T I S S U E O B S E R V A T I O N S >>		DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
TISSUE / HISTOPATHOLOGIC FINDINGS		
ESOPHAGUS		TISSUE IS MISSING

EXORBITAL LACRIM		TISSUE IS MISSING
AORTA		TISSUE IS MISSING
LIVER		NOT SPECIFIED (PRESENT)
	-CAPSULAR FOREIGN GRANULOMATOUS REACTION	NOT SPECIFIED(TRACE)
	-BILE DUCTULE EPITHELIAL HYPERPLASIA	NOT SPECIFIED(TRACE)
	-HEPATITIS	

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23 JAN-84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC  
PRINTED: 14-MAR-86  
PAGE: 11

ANIMAL NUMBER: 216 (Tox No. 265) SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: INTERIM SACRIFICE 2  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 226.00 (GMS)

<< MICROSCOPIC I ISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

JEJUNUM

MAMMARY GLANDS

TISSUE IS MISSING

TISSUE IS MISSING

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-366

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 217 (Tox No. 267) SEX: FEMALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

Brown--668

PRINTED: 14-MAR-86  
PAGE: 12

SACRIFICE STATUS: INTERIM SACRIFICE 2

STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 211.00 (GMS)

<< ORGAN WEIGHTS >>		RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)		
14-OCT-85	631/91	0.103	0.0488 %	0.0577
14-OCT-85	631/91	7.373	3.4943 %	OK
14-OCT-85	631/91	1.523	0.7218 %	OK
14-OCT-85	631/91	0.077	0.0365 %	HIGH
14-OCT-85	631/91	0.738	0.3498 %	OK
14-OCT-85	631/91	1.786	0.8464 %	OK
14-OCT-85	631/91	0.463	0.2194 %	HIGH

<< GROSS ORGAN OBSERVATIONS >>  
ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE TEXT COMMENTS  
PERITONEAL CAV. ADHESION(S) PRESENT SMALL INTESTINE ADHERED TO LIVER. HAS A 5MM BLACK DIVERTICULUM.  
LIVER ADHERED-DIAPHRAGM & PERITONEUM. PRESENT IN WALL OF INTESTINE AT ADHESION.  
DIFFUSE.

<< MICROSCOPIC FINDINGS TISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS  
ESOPHAGUS TISSUE IS MISSING  
LIVER CAPSULAR FOREIGN GRANULOMATOUS REACTION NOT SPECIFIED (PRESENT)  
-BILE DUCTULE EPITHELIAL HYPERPLASIA NOT SPECIFIED(TRACE)  
KIDNEY PROGRESSIVE RENAL DISEASE NOT SPECIFIED(TRACE)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

PRINTED: 14-MAR-86  
PAGE: 13  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 217 (Tox No. 267) SEX: FEMALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

STUDY START DATE: 23-JAN-84  
DOSE GROUP: 1 SACRIFICE STATUS: INTERIM SACRIFICE 2  
STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 211.00 (GMS)

<< MICROSCOPIC TISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

JEJUNUM ..... TISSUE IS MISSING  
ILEUM ..... TISSUE IS MISSING  
RECTUM ..... TISSUE IS MISSING  
SCIATIC NERVE ..... TISSUE IS MISSING  
MAMMARY GLANDS ..... TISSUE IS MISSING  
EYES & OPTIC N. .....  
.METAPLASTIC BONE SCLERAL  
NOT SPECIFIED (PRESENT)

Brown--669

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER 344

ANIMAL NUMBER: 221 (TOX NO. 277) SEX: FEMALE DOSE GROUP: 1  
DATE OF DEATH: 11-OCT-84 STUDY DAY OF DEATH: 324

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

Brown--670

ANIMAL NUMBER: 221 (TOX NO. 277) SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: SACRIFICED MORIBUND  
STUDY WEEK OF DEATH: 47 TERMINAL BODY WEIGHT: 211.00 (GMS)

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY	ORGAN NAME			
14-OCT-85	631/91	OVARIES	0.162	0.0673 %	HIGH
14-OCT-85	631/91	LIVER	7.495	3.5521 %	OK
14-OCT-85	631/91	KIDNEYS	1.502	0.7118 %	OK
14-OCT-85	631/91	ADRENAL GLANDS	0.072	0.0341 %	HIGH
14-OCT-85	631/91	HEART	0.739	0.3502 %	OK
14-OCT-85	631/91	BRAIN	1.778	0.8427 %	OK
14-OCT-85	631/91	SPLEEN	0.462	0.2190 %	HIGH

<< GROSS ORGAN OBSERVATIONS >>  
KEYWORDS / PHRASES

ADHERED-DIAPHRAGM & PERITONEUM.  
OCULAR DISCHARGE  
SKIN

PRES

PRES

PRES

WITH TWO LOOPS ADHERED TO RIGHT SIDE OF ABDOMINAL WALL

RED MATERIAL ADHERED TO HAIR

SMALL FOCAL AREA ON VENTRAL SIDE OF TAIL: 1 CM CRUSTY RAISED

<< MICROSCOPIC FINDINGS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS

LIVER

CAPSULAR FOREIGN GRANULOMATOUS REACTION

DUODENUM

-COMPOUND RELATED REACTION WITH ASSOCIATED INFLAMMATION

RECTUM

BONE, STERNUM

TISSUE IS MISSING

TISSUE IS MISSING

NOT SPECIFIED (PRESENT)

NOT SPECIFIED (PRESENT)

TISSUE IS MISSING

TISSUE IS MISSING

LETERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAB/FISCHER 344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 1  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 231 (Tox No. 318)  
DATE OF DEATH: 03-FEB-84

SEX: FEMALE  
STUDY DAY OF DEATH: 12  
DOSE GROUP: 1  
STUDY WEEK OF DEATH: 2  
SACRIFICE STATUS: SACRIFICED MORIBUND  
TERMINAL BODY WEIGHT: 97.00 (GMS)

<< ORGAN WEIGHTS >>		ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	DATE					
14-OCT-85	631/91	OVARIES	0.067	0.0485 %	0.0300	OK
14-OCT-85	631/91	LIVER	5.078	5.2351 %	3.2447	HIGH
14-OCT-85	631/91	KIDNEYS	1.112	1.1464 %	0.7105	OK
14-OCT-85	631/91	ADRENAL GLANDS	0.036	0.0371 %	0.0230	HIGH
14-OCT-85	631/91	HEART	0.422	0.4351 %	0.2696	OK
14-OCT-85	631/91	BRAIN	1.565	1.6134 %	1.0000	HIGH
14-OCT-85	631/91	SPLEEN	0.281	0.2897 %	0.1796	HIGH

<< GROSS ORGAN KEYWORDS / PHRASES		OBSERVATIONS >>	
>> GROSS SURFACE IS ADHERED BY TEST COMPOUND TO STOMACH AND SMALL INTESTINE. ANTERIOR SURFACE IS ADHERED TO DIAPHRAGM.		GROSS FREE-TEXT COMMENTS	
ORGAN NAME	KEYWORDS / PHRASES	SEVERITY	GROSS
LIVER	ADHERED TO DIAPHRAGM AND STOMACH PRESENT	PRESENT	POSTERIOR SURFACE IS ADHERED BY TEST COMPOUND TO STOMACH AND SMALL INTESTINE. ANTERIOR SURFACE IS ADHERED TO DIAPHRAGM.
EYES & OPTIC N.	CORNEAL OPACITY	PRESENT	BILATERAL ROLIG GRANULAR AND OPAQUE SURFACE WITH A FOCAL 3-4 MM AREA
<< MICROSCOPIC FINDINGS		OBSERVATIONS >>	
TISSUE / HISTOPATHOLOGIC FINDINGS	TISSUE	DISTRIBUTION (SEVERITY)	/ SPECIAL COMMENTS
LIVER	-CAPSULAR FOREIGN GRANULOMATOUS REACTION -BILE DUCTULE EPITHELIAL HYPERPLASIA	NOT SPECIFIED (PRESENT) NOT SPECIFIED(TRACE)	
ILEUM		TISSUE IS MISSING	
RECTUM		TISSUE IS MISSING	

Brown--671

LETTERMAN ARMY INSTITUTE OF RESEARCH  
CIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 231 (Tox No. 318)  
DATE OF DEATH: 03-FEB-84

STUDY DAY OF DEATH: 12

STUDY START DATE: 23-JAN-84  
STUDY WEEK OF DEATH: 2

SACRIFICE STATUS: SACRIFICED MORIBUND

BODY WEIGHT: 97.00 (GMS)

<< MICROSCOPIC FINDINGS >>

ISSUE / HISTOPATHOLOGIC FINDINGS

TONGUE .....

MAMMARY GLANDS .....

BONE, STERNUM .....

EYES & OPTIC N.

-CORNEAL VASCULARIZATION

-CHRONIC KERATITIS

-IRIDOCYCLITIS

TISSUE IS MISSING

TISSUE IS MISSING

TISSUE IS MISSING

NOT SPECIFIED(TRACE)  
NOT SPECIFIED(MILD)  
NOT SPECIFIED(MILD)

Brown--672

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLP83009

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

PAGE: 2

PRINTED: 14-MAR-86

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLPB3009  
STUDY START DATE: 23 JAN 84

PRINTED: 14-MAR-86  
PAGE: 1  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 235 (TOX No. 333) SEX: FEMALE  
DATE OF DEATH: 29-AUG-84 STUDY DAY OF DEATH: 220

DOSE GROUP: 1 SACRIFICE STATUS: SACRIFICED MORT BUND  
STUDY WEEK OF DEATH: 32 TERMINAL BODY WEIGHT: 196.00 (GMS)

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME				
14-OCT-85	OVARIES	0.096	0.0490 %	0.0523	OK
14-OCT-85	LIVER	6.425	3.2781 %	3.4995	OK
14-OCT-85	KIDNEYS	1.504	0.7673 %	0.8192	OK
14-OCT-85	ADRENAL GLANDS	0.059	0.0301 %	0.0321	HIGH
14-OCT-85	HEART	0.571	0.2913 %	0.3110	LOW
14-OCT-85	BRAIN	1.836	0.9367 %	1.0300	HIGH
14-OCT-85	SPLEEN	0.714	0.3643 %	0.3389	HIGH

<< GROSS ORGAN OBSERVATIONS >>  
ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

LIVER ADHERED TO DIAPHRAGM.  
WHOLE BODY SUBCUTANEOUS  
PERITONEAL CAV. SMALL INTESTINE

PRES

PRES

PRES

RIGHT FLANK: 4 X 4 CM MODERATELY FIRM WELL DEMARCATED MASS  
OVERLYING SKIN IS DARK BLUE/BLACK.  
PROXIMAL ILEUM ADHERED TO ABDOMINAL WALL AND COMMUNICATES  
WITH SUBCUTANEOUS MASS VIA FISTULA THROUGH ABDOMINAL WALL

<< MICROSCOPIC FINDINGS  
TISSUE / HISTOPATHOLOGIC FINDINGS  
TISSUE IS MISSING

OBSERVATIONS  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER CAPILLAR FOREIGN GRANULOMATOUS REACTION  
-BILE DUCTULE EPITHELIAL HYPERPLASIA

NOT SPECIFIED (PRESENT)  
NOT SPECIFIED (MILD)

KIDNEY  
-PROGRESSIVE RENAL DISEASE

NOT SPECIFIED (TRACE)

Brown--673

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER 344

ANIMAL NUMBER: 235 (TOX No. 333) SEX: FEMALE  
DATE OF DEATH: 29-AUG-84 STUDY DAY OF DEATH: 220

TISSUE / HISTOPATHOLOGIC FINDINGS

RECTUM

TONGUE

MAMMARY GLANDS

EYES & OPTIC N.  
- CORNEAL MINERALIZATION  
- CHRONIC KERATITIS

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLPP3009

STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 2

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

Brown--674

DOSE GROUP: 1  
STUDY WEEK OF DEATH: 32

SACRIFICE STATUS: SACRIFICED MORTBUND

TERMINAL BODY WEIGHT: 196.00 (GMS)

<< MICROSCOPIC TISSUE OBSERVATIONS >>

DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

RECTUM ..... TISSUE IS MISSING

TONGUE ..... TISSUE IS MISSING

MAMMARY GLANDS ..... TISSUE IS MISSING

EYES & OPTIC N.  
- NOT SPECIFIED(MILD)  
- NOT SPECIFIED(TRACE)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 1  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 245 (Tox No. 370) SEX: FEMALE  
DATE OF DEATH: 31-DEC-84 STUDY DAY OF DEATH: 344

DOSE GROUP: 1 SACRIFICE STATUS: SACRIFICED MORIBUND  
STUDY WEEK OF DEATH: 50 TERMINAL BODY WEIGHT: 183.00 (GMS)

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY	ORGAN NAME			
14-OCT-85	631/91	OVARIES	0.079	0.0432 %	0.0440 OK
14-OCT-85	631/91	LIVER	6.454	3.5268 %	3.5915 OK
14-OCT-85	631/91	KIDNEYS	1.565	0.8552 %	0.8709 OK
14-OCT-85	631/91	ADRENAL GLANDS	0.062	0.0339 %	0.0345 HIGH
14-OCT-85	631/91	HEART	0.547	0.2989 %	0.3044 LOW
14-OCT-85	631/91	BRAIN	1.797	0.9820 %	1.0000 HIGH
14-OCT-85	631/91	SPLEEN	0.559	0.3055 %	0.3111 HIGH

<< GROSS ORGAN OBSERVATIONS >>  
ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

LIVER ADHERED TO DIAPHRAGM AND STOMACH PRESENT STOMACH ADHERED TO PERITONEUM  
WHOLE BODY PERINEUM PRESENT HAIR STAINED YELLOW TO ORANGE AND WET  
PERITONEAL CAV. SMALL INTESTINE PRESENT ONE LOOP JEJUNUM AND CECUM ADHERED TO ABDOMINAL WALL  
WITH COMMON OPENING INTO SUBCUTANEOUS TISSUE WITH AREA  
FILLED WITH INGESTA

WHOLE BODY SKIN PRESENT PRESENT

<< MICROSCOPIC FINDINGS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS OBSERVATIONS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER << CAPSULAR FOREIGN GRANULOMATOUS REACTION >>  
-HEPATITIS OBSERVATIONS NOT SPECIFIED (PRESENT)  
CECUM -COMPOUND RELATED INFLAMMATORY REACTION NOT SPECIFIED(TRACE)

SKIN NOT SPECIFIED (PRESENT)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 245 (Fox No. 370) SEX: FEMALE  
DATE OF DEATH: 31-DEC-84 STUDY DAY OF DEATH: 344

<< MICROSCOPIC FINDINGS  
TISSUE / HISTOPATHOLOGIC FINDINGS

SKIN

-COMPOUND PRESENT WITH ASSOCIATED INFLAMMATION\FIBROSIS

NOT SPECIFIED (PRESENT)

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

PAGE: 2

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PRINTED: 14-MAR-86

DOSE GROUP: 1

SACRIFICE STATUS: SACRIFICED MORIBUND

STUDY WEEK OF DEATH: 50

TERMINAL BODY WEIGHT:

183.00 (GMS)

<< OBSERVATIONS  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 249 (Tox No. 377) STUDY DAY OF DEATH: 15-JAN-85

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC  
PAGE: 1

SACRIFICE STATUS: FOUND DEAD  
DOSE GROUP: 1  
STUDY WEEK OF DEATH: 52  
TERMINAL BODY WEIGHT: 184.00 (GMS)

<< O R G A N   W E I G H T S >>		ORGAN	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO
DAY/WEEK OF STUDY	ORGAN NAME				
14-OCT-85	OVARIES		0.152	0.0826 %	0.1058
14-OCT-85	LIVER		8.714	4.7359 %	6.0682
14-OCT-85	KIDNEYS		1.974	1.0728 %	1.3747
14-OCT-85	ADRENAL GLANDS		0.062	0.0337 %	0.0432
14-OCT-85	HEART		0.739	0.4016 %	0.5146
14-OCT-85	BRAIN		1.436	0.7804 %	1.0000
14-OCT-85	SPLEEN		0.393	0.2136 %	0.2737

<< G R O S S   O R G A N   O B S E R V A T I O N S >>		SEVERITY	GROSS FREE-TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
LIVER	ADHERED-DIAPHRAGM & PERITONEUM.	PRESENT	
TISSUE / HISTOPATHOLOGIC FINDINGS			

<< M I C R O S C O P I C   T I S S U E   O B S E R V A T I O N S >>		OBSERVATIONS	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
LIVER	-CAPSULAR FOREIGN GRANULOMATOUS REACTION -BILE DUCTULE EPITHELIAL HYPERPLASIA		NOT SPECIFIED (PRESENT) NOT SPECIFIED(MILD)
KIDNEY	-PROGRESSIVE RENAL DISEASE		NOT SPECIFIED(TRACE)
URINARY BLADDER			TISSUE IS MISSING

Brown--677

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

ANIMAL NUMBER: 252 (Tox No. 385) SEX: FEMALE DOSE GROUP: 1  
DATE OF DEATH: 22-OCT-84 STUDY DAY OF DEATH: 274

Bornnn--678

PRINTED: 14-MAR-86  
PAGE: 1  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

SACRIFICE STATUS: SACRIFICED MORIBUND  
STUDY WEEK OF DEATH: 40 TERMINAL BODY WEIGHT: 215.00 (GMS)

<< ORGAN WEIGHTS >>		ABSOLUTE: ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME				
14-OCT-85	631/91	0.084	0.0391 %	0.0468	OK
14-OCT-85	LIVER	6.902	3.2102 %	3.8473	OK
14-OCT-85	KIDNEYS	1.463	0.6805 %	0.8155	OK
14-OCT-85	ADRENAL GLANDS	0.046	0.0214 %	0.0256	HIGH
14-OCT-85	HEART	0.695	0.3233 %	0.3874	OK
14-OCT-85	BRAIN	1.794	0.8344 %	1.0000	OK
14-OCT-85	SPLEEN	0.567	0.3102 %	0.3718	HIGH

<< GROSS ORGAN OBSERVATIONS >>  
KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

ADHERED TO DIAPHRAGM.  
HEMORRHAGE(S)  
SKIN  
ADHESION(S)  
PERITONEAL CAV.

PRESNT TO INCLUDE INTESTINES  
PRESENT LEFT IS SURROUNDED BY A SMALL RED FLUID FILLED SAC  
PRESENT 5 X 5 CM LUMP ON LEFT LATERAL ASPECT WITH 2 X 2 CM BLACK  
PRESENT AREA IN CENTER. LUMP HAS ERODED THROUGH ABDOMINAL WALL  
TO SKIN  
PRESENT SMALL INTESTINES, DIAPHRAGM, ABDOMINAL WALL, LIVER, LUMP  
ON DISTAL ILEUM WHICH HAS PERFORATED THROUGH ABDOMINAL  
WALL

<< MICROSCOPIC TISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

PARATHYROID ..... TISSUE IS MISSING

LIVER ..... CAPSULAR FOREIGN GRANULOMATOUS REACTION  
-BILE DUCTULE EPITHELIAL HYPERPLASIA

L.EUM ..... NOT SPECIFIED (PRESENT)  
NOT SPECIFIED (MILD)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
 DIV OF RES SUPP, PATH SERV GP  
 SPECIES: RAT/FISCHER-344

## INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

PAGE: 2

ANIMAL NUMBER: 252 (Tox No. 385) SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: SACRIFICED MORIBUND  
 DATE OF DEATH: 22-OCT-84 STUDY DAY OF DEATH: 274 STUDY WEEK OF DEATH: 40 TERMINAL BODY WEIGHT: 215.00 (GMS)

<< MICROSCOPIC TISSUE OBSERVATIONS >>  
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

ILEUM

-COMPOUND RELATED INFLAMMATORY REACTION

NOT SPECIFIED (PRESENT)

PANCREAS

-PERITONITIS

NOT SPECIFIED(TRACE)

STOMACH

-COMPOUND RELATED INFLAMMATORY REACTION

NOT SPECIFIED (PRESENT)

SKIN

-PROCEDURE RELATED GRANULOMATOUS CELLULITIS SUBCUTIS

NOT SPECIFIED (PRESENT)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLP83009

STUDY START DATE: 23 JAN 84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 274 (TOX NO. 229) SEX: FEMALE  
DATE OF DEATH: 28 JAN 85 STUDY DAY OF DEATH: 372

PRINTED: 14-MAR-86  
PAGE: 1

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DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 2  
STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 204.00 (GMS)

<< ORGAN WEIGHTS >>		ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME	RELATIVE % OF BODY WEIGHT	
14-OCT-85	OVARIES	0.096	0.0471 %
14-OCT-85	LIVER	5.527	2.7093 %
14-OCT-85	KIDNEYS	1.392	0.6824 %
14-OCT-85	ADRENAL GLANDS	0.064	0.0314 %
14-OCT-85	HEART	0.742	0.3637 %
14-OCT-85	BRAIN	1.728	0.8471 %
14-OCT-85	SPLEEN	0.416	0.2039 %
			0.2407 HIGH

<< GROSS ORGAN OBSERVATIONS >>  
ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS  
EYES & OPTIC N. IRREGULAR EYE SURFACE.  
LIVER ADHERED TO DIAPHRAGM.

<< HISTOPATHOLOGY FINDINGS >>  
TISSUE / HISTOPATHOLOGY FINDINGS  
LIVER CAPSULAR FOREIGN GRANULOMATOUS REACTION  
RECTUM  
NOT SPECIFIED (PRESENT)  
TISSUE IS MISSING

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

ANIMAL NUMBER: 275 (TOX NO. 231) SEX: FEMALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372  
DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 2  
STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 199.00 (GMS)

PRINTED: 14-MAR-86  
PAGE: 2

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK	OF STUDY				
14-OCT-85	631/91	0.144	0.0724 %	0.0784	HIGH
14-OCT-85	631/91	5.861	2.9452 %	3.1905	LOW
14-OCT-85	631/91	1.572	0.7899 %	0.8557	OK
14-OCT-85	631/91	0.079	0.0397 %	0.0430	HIGH
14-OCT-85	631/91	0.654	0.3286 %	0.3560	OK
14-OCT-85	631/91	1.837	0.9231 %	1.0000	HIGH
14-OCT-85	631/91	0.428	0.2151 %	0.2330	HIGH

<< GROSS ORGAN OBSERVATIONS >>		SEVERITY	GROSS FREE TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
EYES & OPTIC N.	IRREGULAR EYE SURFACE.	TRACE	LEFT
EYES & OPTIC N.	CORNEAL OPACITY	PRESNT	WHITE, BILATERAL
LIVER	ADHERED TO DIAPHRAGM.	PRESNT	1 CM

<< MICROSCOPIC FINDINGS		ISSUE	OBSERVATIONS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
TISSUE / HISTOPATHOLOGIC FINDINGS			
LIVER			NOT SPECIFIED (PRESENT)
	-CAPSULAR FOREIGN GRANULOMATOUS REACTION		NOT SPECIFIED (MILD)
	-BILE DUCTULE EPITHELIAL HYPERPLASIA		NOT SPECIFIED (TRACE)
RECTUM			TISSUE IS MISSING
EYES & OPTIC N.			NOT SPECIFIED (TRACE)
	-CORNEAL MINERALIZATION		

LETTERMAN ARMY INSTITUTE OF RESEARCH  
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SPECIES: RAT/FISCHER - 344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLPB3009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 3  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 276 (Tox No. 234) SEX: FEMALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372  
DOSE GROUP: 2 STUDY WEEK OF DEATH: 54

SACRIFICE STATUS: INTERIM SACRIFICE 2  
TERMINAL BODY WEIGHT: 201.00 (GMS)

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME				
14-OCT-85	631/91	0.120	0.0597 X	0.0705	OK
14-OCT-85	OVARIES	6.037	3.0035 X	3.5470	OK
14-OCT-85	LIVER	1.664	0.8279 X	0.9777	OK
14-OCT-85	KIDNEYS	0.086	0.0428 X	0.0505	HIGH
14-OCT-85	ADRENAL GLANDS	0.835	0.4154 X	0.4906	OK
14-OCT-85	HEART	1.702	0.8468 X	1.0000	OK
14-OCT-85	BRAIN	0.447	0.2224 X	0.2626	HIGH
14-OCT-85	SPLEEN				

ORGAN NAME	<< GROSS ORGAN OBSERVATIONS >>	SEVERITY	GROSS FREE TEXT COMMENTS
EYES & OPTIC N.	KEYWORDS / PHRASES		
EYES & OPTIC N.	IRREGULAR EYE SURFACE. CORNEAL OPACITY	PRESENT PRESENT	LEFT RIGHT 1 X 2 MM WHITE OPACITY

TISSUE / HISTOPATHOLOGIC FINDINGS	<< MICROSCOPIC TISSUE OBSERVATIONS >>	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
PARATHYROID		TISSUE IS MISSING
LIVER	CAPSULAR FOREIGN GRANULOMATOUS REACTION BILE DUCTULE EPITHELIAL HYPERPLASIA	NOT SPECIFIED (PRESENT) NOT SPECIFIED(MODERATE)

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DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

ANIMAL NUMBER: 277 (TOX No. 239) SEX: FEMALE DOSE GROUP: 2  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 SACRIFICE STATUS: INTERIM SACRIFICE 2  
STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 225.00 (GMS)

PRINTED: 14-MAR-86

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STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

<< O R G A N   W E I G H T S >>		ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	DATE					
14-OCT-85	631/91	OVARIES	0.143	0.0636 %	0.0781	OK
14-OCT-85	631/91	LIVER	6.433	2.8591 %	3.5153	LOW
14-OCT-85	631/91	KIDNEYS	1.596	0.7093 %	0.8721	OK
14-OCT-85	631/91	ADRENAL GLANDS	0.090	0.0400 %	0.0492	HIGH
14-OCT-85	631/91	HEART	0.807	0.3587 %	0.4410	OK
14-OCT-85	631/91	BRAIN	1.830	0.8133 %	1.0000	OK
14-OCT-85	631/91	SPLEEN	0.522	0.2320 %	0.2832	HIGH

<< G R O S S O R G A N O B S E R V A T I O N S >>  
ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS  
LIVER ADHERED TO PERITONEAL WALL PRESENT

<< M I C R O S C O P I C T I S S U E O B S E R V A T I O N S >>  
TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS  
HEART  
-CARDIOMYOPATHY  
LIVER  
-CAPSULAR FOREIGN GRANULOMATOUS REACTION  
-BILE DUCTULE EPITHELIAL HYPERPLASIA  
KIDNEY  
-PROGRESSIVE RENAL DISEASE  
URINARY BLADDER  
NOT SPECIFIED(TRACE)  
NOT SPECIFIED(PRESENT)  
NOT SPECIFIED(TRACE)  
NOT SPECIFIED(TRACE)  
TISSUE IS MISSING

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SPECIES: RAT/FISCHER-344

PRINTED: 14-MAR-86  
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STUDY NUMBER: GLP83009  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC  
STUDY START DATE: 23-JAN-84  
ANIMAL NUMBER: 277 (Tox No. 239) SEX: FEMALE DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 2  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 225.00 (GMS)  
<< MICROSCOPIC TISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

MAMMARY GLANDS .....

..... TISSUE IS MISSING

Brown--684

LETTERMAN ARMY INSTITUTE OF RESEARCH  
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 SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
 STUDY NUMBER: GLP83009  
 STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
 PAGE: 6  
 STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 278 (Tox No. 244) SEX: FEMALE  
 DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

SACRIFICE STATUS: INTERIM SACRIFICE 2  
 STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 191.00 (GMS)

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY				
14-OCT-85	631/91	0.130	0.0681	0.0718	HIGH
14-OCT-85	631/91	5.919	3.0990	3.2684	OK
14-OCT-85	631/91	1.477	0.7733	0.8156	OK
14-OCT-85	631/91	0.050	0.0262	0.0276	HIGH
14-OCT-85	631/91	0.617	0.3230	0.3407	OK
14-OCT-85	631/91	1.811	0.9482	1.0000	HIGH
14-OCT-85	631/91	0.418	0.2188	0.2308	HIGH

<< GROSS ORGAN OBSERVATIONS >>		SEVERITY	GROSS FREE TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
EYES & OPTIC N.	IRREGULAR EYE SURFACE.	TRACE	BILATERAL
KIDNEY	CYST	PRESENT	1 MM CORTICAL, LEFT
UTERUS	POLYP	PRESENT	LEFT HORN, ENDOMETRIAL

<< MICROSCOPIC FINDINGS		TISSUE	OBSERVATIONS	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
LUNGS	-PLEURITIS WITH SUBADJACENT CHRONIC PNEUMONIA		NOT SPECIFIED(MILD)	

THYMUS  
 -PLEURITIS

LIVER  
 -CAPSULAR FOREIGN GRANULOMATOUS REACTION  
 -BILE DUCTULE EPITHELIAL HYPERPLASIA

UTERUS  
 NOT SPECIFIED(TRACE)  
 NOT SPECIFIED(PRESENT)  
 NOT SPECIFIED(MILD)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
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SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

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ANIMAL NUMBER: 278 (TOX No. 244) SEX: FEMALE DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 2  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 191.00 (GMS)

<< MICROSCOPIC FINDINGS

TISSUE / HISTOPATHOLOGIC FINDINGS

OBSERVATIONS

DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

UTERUS ..... NOT SPECIFIED (PRESENT)

UTERUS -ENDOMETRIAL STROMAL POLYP

MAMMARY GLANDS ..... TISSUE IS MISSING

Brown--686

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SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 8  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 279 (TOX NO. 246) SEX: FEMALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 2  
STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 239.00 (GMS)

<< ORGAN WEIGHTS >>		RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME			
14-OCT-85	OVARIES	0.098	0.0410 %	OK
14-OCT-85	LIVER	6.636	2.7766 %	LOW
14-OCT-85	KIDNEYS	1.778	0.7439 %	OK
14-OCT-85	ADRENAL GLANDS	0.080	0.0335 %	HIGH
14-OCT-85	HEART	0.814	0.3406 %	OK
14-OCT-85	BRAIN	1.722	0.7205 %	OK
14-OCT-85	SPLEEN	0.447	0.1870 %	HIGH

<< GROSS ORGAN OBSERVATIONS >>		SEVERITY	TEXT COMMENTS	GROSS FREE-TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES			
EYES & OPTIC N.	FOCAL CORNEAL OPACITY	PRESENT	1MM WHITE FOCUS	
<< HISTOPATHOLOGIC FINDINGS		>> OBSERVATIONS		DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
LIVER	-FOCUS BASOPHILIC	NOT SPECIFIED(TRACE)		
SKIN			TISSUE IS MISSING	
MAMMARY GLAND			TISSUE IS MISSING	
PITUITARY GLAND	-CYST(S)	NOT SPECIFIED (PRESENT)		

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER 344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

ANIMAL NUMBER: 280 (Tox No. 247) SEX: FEMALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372  
STUDY GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 2  
TERMINAL BODY WEIGHT: 209.00 (GMS)

PRINTED: 14-MAR-86  
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STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

<< ORGAN WEIGHTS >>		ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE OF STUDY	ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	BODY WEIGHT
14-OCT-85	OVARIES	0.512	0.2450 %
14-OCT-85	LIVER	7.124	3.4086 %
14-OCT-85	KIDNEYS	1.621	0.7756 %
14-OCT-85	ADRENAL GLANDS	0.082	0.0392 %
14-OCT-85	HEART	0.729	0.0470 %
14-OCT-85	BRAIN	1.744	0.3488 %
14-OCT-85	SPLEEN	0.454	0.2172 %
			HIGH
			OK
			OK
			HIGH
			OK
			OK
			HIGH

<< GROSS ORGAN OBSERVATIONS >>		GROSS FREE-TEXT COMMENTS	
ORGAN NAME	KEYWORDS / PHRASES	SEVERITY	
EYES & OPTIC N.	IRREGULAR EYE SURFACE.	PRESENT	LEFT
EYES & OPTIC N.	CORNEAL OPACITY	TRACE	RIGHT
OVARIES	CYST(S) WITHIN OVARY	PRES	SMALL PUNCTATE OPACITY
LIVER	ADHERED-DIAPHRAGM & PERITONEUM.	PRES	.5 CM
			2.5 CM

<< MICROSCOPIC TISSUE OBSERVATIONS >>		DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS	
TISSUE / HISTOPATHOLOGIC FINDINGS			
PARATHYROID			TISSUE IS MISSING
LIVER			NOT SPECIFIED (PRESENT)
-CAPSULAR FOREIGN GRANULOMATOUS REACTION			NOT SPECIFIED(TRACE)
-BILE DUCTULE EPITHELIAL HYPERPLASIA			NOT SPECIFIED(TRACE)
-HEPATITIS			NOT SPECIFIED(MILD)
-HEPATOCYTIC VACUOLIZATION			

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SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 10

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 280 (TOX No. 247) SEX: FEMALE DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 2  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 209.00 (GMS)

<< M I C R O S C O P I C T I S S U E      O B S E R V A T I O N S >>  
Tissue / Histopathologic Findings  
Distribution (Severity) / Special Comments

URINARY BLADDER ..... TISSUE IS MISSING

PANCREAS ..... TISSUE IS MISSING

NOSE/TURBINATES .....  
ACUTE INFLAMMATION  
NOT SPECIFIED(TRACE)

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SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 11  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC  
ANIMAL NUMBER: 281 (Tox No. 249) SEX: FEMALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372  
STUDY WEEK OF DEATH: 54 SACRIFICE STATUS: INTERIM SACRIFICE 2  
TERMINAL BODY WEIGHT: 220.00 (GMS)

<< ORGAN WEIGHTS >>		ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME					
14-OCT-85	631/91	OVARIES	0.091	0.0414 %	0.0509	OK
14-OCT-85	631/91	LIVER	5.940	2.7000 %	3.3240	LOW
14-OCT-85	631/91	KIDNEYS	1.553	0.7059 %	0.8691	OK
14-OCT-85	631/91	ADRENAL GLANDS	0.062	0.0282 %	0.0347	HIGH
14-OCT-85	631/91	HEART	0.916	0.4164 %	0.5126	OK
14-OCT-85	631/91	BRAIN	1.787	0.8123 %	1.0000	OK
14-OCT-85	631/91	SPLEEN	0.482	0.2191 %	0.2697	HIGH

<< GROSS ORGAN OBSERVATIONS >>		SEVERITY	GROSS FREE-TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
EYES & OPTIC N.	OCULAR DISCHARGE ADHERED-DIAPHRAGM & PERITONEUM.	PRESENT	RED DISCOLORATION AROUND THE EYES, BILATERAL 1 CM
TISSUE / HISTOPATHOLOGIC FINDINGS	TISSUE	OBSE	RVATI
ESOPHAGUS			ISSUE IS MISSING
EXORBITAL LACRIM			TISSUE IS MISSING
HEART			NOT SPECIFIED(TRACE)
-CARDIOMYOPATHY			
LIVER			NOT SPECIFIED (PRESENT)
-CAPSULAR FOREIGN GRANULOMATOUS REACTION			NOT SPECIFIED(MILD)
-BILE DUCTULE EPITHELIAL HYPERPLASIA			NOT SPECIFIED(TRACE)
-HEPATITIS			
EYES & OPTIC N.			

LETTERMAN ARMY INSTITUTE OF RESEARCH  
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 SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 281 (Tox No. 249) SEX: FEMALE  
 DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

<< HISTOPATHOLOGIC FINDINGS

EYES & OPTIC N.

-CORNEAL MINERALIZATION

AD SEBACIOUS

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

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NOT SPECIFIED(TRACE)

TISSUE IS MISSING

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SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 282 (Tox No. 250) SEX: FEMALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

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<< ORGAN WEIGHTS >>	
DAY/WEEK OF STUDY	ORGAN NAME
14-OCT-85 631/91	OVARIES
14-OCT-85 631/91	LIVER
14-OCT-85 631/91	KIDNEYS
14-OCT-85 631/91	ADRENAL GLANDS
14-OCT-85 631/91	HEART
14-OCT-85 631/91	BRAIN
14-OCT-85 631/91	SPLEEN

DATE	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
14-OCT-85 631/91	0.092	0.0420 %	0.0527	OK
14-OCT-85 631/91	5.951	2.7174 %	3.4084	LOW
14-OCT-85 631/91	1.518	0.6932 %	0.8694	OK
14-OCT-85 631/91	0.065	0.0297 %	0.0372	HIGH
14-OCT-85 631/91	0.836	0.3817 %	0.4788	OK
14-OCT-85 631/91	1.746	0.7973 %	1.0000	OK
14-OCT-85 631/91	0.482	0.2201 %	0.2761	HIGH

<< GROSS ORGAN OBSERVATIONS >>	
ORGAN NAME	KEYWORDS / PHRASES
EYES & OPTIC N.	CORNEAL OPACITY
LIVER	ADHERED TO PERITONEAL WALL

<< MICROSCOPIC FINDINGS TISSUE OBSERVATIONS >>	
TISSUE / HISTOPATHOLOGIC FINDINGS	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
PARATHYROID	.....
SALIVARY GLAND	.....
LIVER	-CAPSULAR FOREIGN GRANULOMATOUS REACTION -BILE DUCTULE EPITHELIAL HYPERPLASIA
URINARY BLADDER	.....

<< OBSERVATIONS >>	
TISSUE	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
PARATHYROID	..... TISSUE IS MISSING
SALIVARY GLAND	..... TISSUE IS MISSING
LIVER	..... NOT SPECIFIED (PRESENT) NOT SPECIFIED(TRACE)
URINARY BLADDER	..... TISSUE IS MISSING

LETERMAN ARMY INSTITUTE OF RESEARCH  
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 SPECIES: RAT/FISCHER '344

ANIMAL NUMBER: 282 (Tox No. 250) SEX: FEMALE DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 2  
 DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 219.00 (GMS)

<< MICROSCOPIC FINDINGS  
 TISSUE / HISTOPATHOLOGIC FINDINGS

BONE, FEMUR ..... TISSUE IS MISSING

PITUITARY GLAND . NOT SPECIFIED (PRESENT)  
 .CYST(S)

INDIVIDUAL ANIMAL DATA REPORT  
 STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84 STUDY TYPE: CHRONIC/2 YR CARCINOGENIC  
 PAGE: 14

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LETERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 283 (Tox No. 251) SEX: FEMALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

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PAGE: 15

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

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<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY	ORGAN NAME			
14-OCT-85	631/91	OVARIES	0.083	0.0392 %	0.0451 OK
14-OCT-85	631/91	LIVER	5.732	2.7038 %	3.1118 LOW
14-OCT-85	631/91	KIDNEYS	1.469	0.6929 %	0.7975 OK
14-OCT-85	631/91	ADRENAL GLANDS	0.068	0.0321 %	0.0349 HIGH
14-OCT-85	631/91	HEART	0.654	0.3085 %	0.3550 OK
14-OCT-85	631/91	BRAIN	1.842	0.8689 %	1.0000 OK
14-OCT-85	631/91	SPLEEN	0.483	0.2278 %	0.2622 HIGH

ORGAN NAME	<< GROSS ORGAN OBSERVATIONS >>	SEVERITY	GROSS FREE-TEXT COMMENTS
EYES & OPTIC N.	IRREGULAR EYE SURFACE.	MILD	RIGHT
LIVER	ADHERED TO DIAPHRAGM.	PRESENT	1 CM

TISSUE / HISTOPATHOLOGIC FINDINGS	<< MICROSCOPIC TISSUE OBSERVATIONS >>	Q & S E R V A T I O N S	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
LIVER	CAPSULAR FOREIGN GRANULOMATOUS REACTION	NOT SPECIFIED (PRESENT)	NOT SPECIFIED(TRACE)
	BILE DUCTULE EPITHELIAL HYPERPLASIA	NOT SPECIFIED (PRESENT)	NOT SPECIFIED(TRACE)
KIDNEY	PROGRESSIVE RENAL DISEASE	NOT SPECIFIED (PRESENT)	NOT SPECIFIED(TRACE)
MAMMARY GLANDS		TISSUE IS MISSING	
EYES & OPTIC N.	CORNEAL PIGMENTATION	NOT SPECIFIED (TRACE)	

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLPB3009

STUDY START DATE: 23-JAN-84

ANIMAL NUMBER: 317 (Tox No. 344) SEX: FEMALE  
DATE OF DEATH: 12 MAR-84 STUDY DAY OF DEATH: 50

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

DOSE GROUP: 2 SACRIFICE STATUS: SACRIFICED MORIBUND  
STUDY WEEK OF DEATH: 8 TERMINAL BODY WEIGHT: 170.00 (GMS)

<< ORGAN WEIGHTS >>		ORGAN TO BRAIN WEIGHT RATIO
DAY/WEEK OF STUDY	ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)
14-OCT-85 631/91	OVARIES	0.100
14-OCT-85 631/91	LIVER	6.800
14-OCT-85 631/91	KIDNEYS	1.320
14-OCT-85 631/91	ADRENAL GLANDS	0.040
14-OCT-85 631/91	HEART	0.570
14-OCT-85 631/91	BRAIN	1.550
14-OCT-85 631/91	SPLEEN	0.420

<< GROSS ORGAN OBSERVATIONS >>  
ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE TEXT COMMENTS  
LIVER ADHERED-DIAPHRAGM & PERITONEUM. PRESENT ADHERED TO STERNAL AREA

<< MICROSCOPIC TISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS TISSUE DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS  
PARATHYROID . . . . . TISSUE IS MISSING

LIVER . . . . . NOT SPECIFIED (PRESENT)  
-CAPSULAR FOREIGN GRANULOMATOUS REACTION  
KIDNEY . . . . . NOT SPECIFIED (TRACE)  
-PROGRESSIVE RENAL DISEASE  
JEJUNUM . . . . . TISSUE IS MISSING  
RECTUM . . . . . TISSUE IS MISSING

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 2

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 317 (TON No. 344) SEX: FEMALE  
DATE OF DEATH: 12-MAR-84 STUDY DAY OF DEATH: 50

DOSE GROUP: 2

STUDY WEEK OF DEATH: 8

SACRIFICE STATUS: SACRIFICED MORIBUND

TERMINAL BODY WEIGHT: 170.00 (GMS)

<< MICROSCOPIC FINDINGS

TISSUE / HISTOPATHOLOGIC FINDINGS

TISSUE OBSERVATIONS >>

DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

TONGUE ..... TISSUE IS MISSING

SKIN ..... NOT SPECIFIED(TRACE)  
NON-SUPPURATIVE DERMATITIS

MAMMARY GLANDS ..... TISSUE IS MISSING

EYES & OPTIC N. ..... TISSUE IS MISSING

-CORNEAL MINERALIZATION

-CORNEAL VASCULARIZATION

-CHRONIC KERATITIS

NOT SPECIFIED(TRACE)

NOT SPECIFIED(TRACE)

NOT SPECIFIED(MODERATE)

Brown--696

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER 344

PRINTED: 14-MAR-86  
PAGE: 1  
STUDY NUMBER: GLP83009  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 335 (Tox No. 421)  
DATE OF DEATH: 04-JUN-84

SEX: FEMALE

DOSE GROUP: 2

STUDY DAY OF DEATH: 134

STUDY WEEK OF DEATH: 20

SACRIFICE STATUS: SACRIFICED MORIBUND

TERMINAL BODY WEIGHT: 172.00 GMS)

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

STUDY END DATE: 23-JAN-84

<< ORGAN WEIGHTS >>		ORGAN TO BRAIN WEIGHT RATIO	
DAY/WEEK OF STUDY	ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT
14-OCT-85	OVARIES	0.057	0.0331 %
14-OCT-85	LIVER	5.602	3.2570 %
14-OCT-85	KIDNEYS	1.251	0.7273 %
14-OCT-85	ADRENAL GLANDS	0.056	0.0326 %
14-OCT-85	HEART	0.631	0.3669 %
14-OCT-85	BRAIN	1.692	0.9837 %
14-OCT-85	SPLEEN	0.375	0.2180 %

<< GROSS ORGAN OBSERVATIONS >>  
KEYWORDS / PHRASES  
PRESENT PRESENT PRESENT PRESENT

EMACIATED CRUSTY MATERIAL, PERIORBITAL  
CORNEAL OPACITY ADHERED TO DIAPHRAGM.  
WHOLE BODY EYES & OPTIC N.  
EYES & OPTIC N.  
LIVER

RED  
CENTRALLY LOCATED, 2 MM  
ATTACHED IN TWO AREAS: LEFT LOBE 5 X 8 MM RECTANGULAR  
ATTACHMENT. MIDDLE: IRREGULAR 15 X 10 MM ATTACHMENT WITH  
TEST COMPOUND

<< MICROSCOPIC FINDINGS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS  
LIVER CAPSULAR FOREIGN GRANULOMATOUS REACTION  
RECTUM  
TONGUE  
EYES & OPTIC N.

GROSS FREE-TEXT COMMENTS  
PRESENT PRESENT PRESENT PRESENT  
NOT SPECIFIED (PRESENT)  
TISSUE IS MISSING  
TISSUE IS MISSING

Brown--697

LETERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 2  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC  
ANIMAL NUMBER: 335 (TOX No. 421) SEX: FEMALE DOSE GROUP: 2 SACRIFICE STATUS: SACRIFICED MORIBUND  
DATE OF DEATH: 04-JUN-84 STUDY DAY OF DEATH: 134 STUDY WEEK OF DEATH: 20 TERMINAL BODY WEIGHT: 172.00 (GMS)  
<< MICROSCOPIC TISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

EYES & OPTIC N.  
· CHRONIC KERATITIS

NOT SPECIFIED (TRACE)

Brown--698

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 1  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 340 (Tox No. 434)  
DATE OF DEATH: 02-OCT-84

SEX: FEMALE  
STUDY DAY OF DEATH: 254

DOSE GROUP: 2  
STUDY WEEK OF DEATH: 37  
SACRIFICE STATUS: SACRIFICED MORIBUND  
TERMINAL BODY WEIGHT: 200.00 (GMS)

<< ORGAN WEIGHTS >>		RELATIVE % OF ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME		
14-OCT-85	631/91	0.088	0.0440 %
14-OCT-85	OVARIES	7.289	3.6445 %
14-OCT-85	LIVER	1.414	0.7070 %
14-OCT-85	KIDNEYS	0.071	0.0355 %
14-OCT-85	ADRENAL GLANDS	0.686	0.3430 %
14-OCT-85	HEART	1.836	0.9180 %
14-OCT-85	BRAIN	0.458	0.2290 %
14-OCT-85	SPLEEN		0.2495 %

<< GROSS ORGAN OBSERVATIONS >>  
KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS  
ORGAN NAME PRESENT BILATERAL 4-5 WHITE FOCI RANDOMLY DISTRIBUTED OVER CORNEA,  
EYES & OPTIC N. PRESENT APPROXIMATELY 1-.5 MM  
LIVER ADHERED TO DIAPHRAGM. PRESENT FOCAL AREA APPROXIMATELY .5 CM AT DISTAL END STERNUM  
WHOLE BODY CHIN PRESENT VENTRAL MANDIBLE HAS 1 CM AREA OF HAIR LOSS

<< MICROSCOPIC FINDINGS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS  
LIVER -CAPSULAR FOREIGN GRANULOMATOUS REACTION  
-HEPATITIS  
PANCREAS -ACINAR (EXOCRINE) ATROPHY  
RECTUM

OBSERVATIONS  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS  
NOT SPECIFIED (PRESENT)  
NOT SPECIFIED(TRACE)

NOT SPECIFIED(MILD)  
TISSUE IS MISSING

Brown--699

LETTERMAN ARMY INSTITUTE OF RESEARCH  
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SPECIES: RAT/FISCHER 344

PRINTED: 14-MAR-86  
STUDY NUMBER: GLP83009  
PAGE: 2

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

STUDY START DATE: 23-JAN-84

ANIMAL NUMBER: 340 (Tox No. 434) SEX: FEMALE DOSE GROUP: 2

DATE OF DEATH: 02-OCT-84 STUDY DAY OF DEATH: 254

STUDY WEEK OF DEATH: 37 SACRIFICE STATUS: SACRIFICED MORIBUND

TERMINAL BODY WEIGHT: 200.00 (GMS)

TISSUE / HISTOPATHOLOGIC FINDINGS

<< MICROSCOPIC TISSUE OBSERVATIONS >>

DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

MAIMARY GLANDS ..... TISSUE IS MISSING

EYES & OPTIC N.

-CORNEAL MINERALIZATION

NOT SPECIFIED(MODERATE)

Brown--700

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

ANIMAL NUMBER: 341 (Tox No. 227) SEX: FEMALE  
DATE OF DEATH: 28 JAN-85 STUDY DAY OF DEATH: 372  
DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 2  
STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 219.00 (GMS)

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME				
14-OCT-85	631/91	0.082	0.0374 %	0.0468	OK
14-OCT-85	631/91	5.601	2.5575 %	3.1933	LOW
14-OCT-85	631/91	1.552	0.7087 %	0.8848	OK
14-OCT-85	631/91	0.072	0.0329 %	0.0410	HIGH
14-OCT-85	631/91	0.782	0.3571 %	0.4458	OK
14-OCT-85	631/91	1.754	0.8009 %	1.0000	OK
14-OCT-85	631/91	0.454	0.2073 %	0.2588	HIGH
14-OCT-85	631/91				

<< GROSS ORGAN OBSERVATIONS >>		SEVERITY	GROSS FREE-TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
EYES & OPTIC N.	CORNEAL OPACITY	PRESENT	LEFT 1MM RAISED WHITE SPOT. ADJACENT WHITE ROUGH AREA ON CORNEA MEASURES 1-2 MM.
LIVER	FOCI	PRESENT	2 SLIGHTLY RAISED FOCI MEASURING 2MM ON DIAPHRAGMATIC SURFA CE

<< MICROSCOPIC FINDINGS >>		OBSERVATIONS	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
TISSUE / HISTOPATHOLOGIC FINDINGS			
LIVER	-FIBROSI'S CAPSULAR NO COMPOUND	NOT SPECIFIED (PRESENT)	
URINARY BLADDER			TISSUE IS MISSING
UTERUS	-DILATATION OF THE UTERINE LUMEN (HYDROME TRA)		NOT SPECIFIED (PRESENT)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 341 ('TOX No.' 227)      SEX: FEMALE  
DATE OF DEATH: 28-JAN-85      STUDY DAY OF DEATH: 372

TISSUE / HISTOPATHOLOGIC FINDINGS  
MICROSCOPIC FINDINGS

RECTUM

EYES & OPTIC N.  
-CORNEAL MINERALIZATION  
-CORNEAL VASCULARIZATION  
-CHRONIC KERATITIS

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84  
DOSE GROUP: 3      STUDY WEEK OF DEATH: 54

SACRIFICE STATUS: INTERIM SACRIFICE 2  
TERMINAL BODY WEIGHT: 219.00 (GMS)

OBSERVATIONS

TISSUE DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

TISSUE IS MISSING

NOT SPECIFIED (PRESENT)

PRINTED: 14-MAR-86  
PAGE: 2

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

Brown--702

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER 344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

ANIMAL NUMBER: 342 (Tox No. 233) SEX: FEMALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 2  
STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 210.00 (GMS)

PRINTED: 14-MAR-86  
PAGE: 3  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

Brown--703

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK	OF STUDY				
14-OCT-85	631/91	0.121	0.0576 %	0.0701	OK
14-OCT-85	631/91	5.881	2.8005 %	3.4073	LOW
14-OCT-85	631/91	1.445	0.6881 %	0.8372	OK
14-OCT-85	631/91	0.081	0.0386 %	0.0469	HIGH
14-OCT-85	631/91	0.731	0.3481 %	0.4235	OK
14-OCT-85	631/91	1.726	0.8219 %	1.0000	OK
14-OCT-85	631/91	0.379	0.1805 %	0.2196	HIGH

<< GROSS ORGAN OBSERVATIONS >>		SEVERITY	GROSS FREE-TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
WHOLE BODY	NO GROSS LESIONS RECOGNIZED	PRESENT	

<< MICROSCOPIC FINDINGS		TISSUE	OBSERVATIONS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
TISSUE / HISTOPATHOLOGIC FINDINGS			
EXORBITAL LACRIM			TISSUE IS MISSING
THYMUS			TISSUE IS MISSING
LIVER	-BILE DUCTULE EPITHELIAL HYPERPLASIA -FOCUS BASOPHILIC		NOT SPECIFIED(TRACE) NOT SPECIFIED(TRACE)
KIDNEY	-PROGRESSIVE RENAL DISEASE		NOT SPECIFIED(TRACE)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

ANIMAL NUMBER: 342 (Tox No. 233)  
DATE OF DEATH: 28-JAN-85

STUDY / HISTOPATHOLOGIC FINDINGS  
MICROSCOPIC FINDINGS

RECTUM

SCIATIC NERVE

PITUITARY GLAND  
-CYST(S)

INDIVIDUAL ANIMAL DATA REPORT

STUDY NUMBER: GLPP3009

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 342 (Tox No. 233) SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 2

DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT:

210.00 (GMS)

<< MICROSCOPIC TISSUE OBSERVATIONS >>

TISSUE / SPECIAL COMMENTS  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

RECTUM ..... TISSUE IS MISSING

SCIATIC NERVE ..... TISSUE IS MISSING

PITUITARY GLAND  
-CYST(S)

NOT SPECIFIED (PRESENT)

Brown--704

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 5  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 343 (Tox No. 235)  
DATE OF DEATH: 28-JAN-85

SEX: FEMALE  
STUDY DAY OF DEATH: 372

DOSE GROUP: 3

SACRIFICE STATUS: INTERIM SACRIFICE 2

STUDY WEEK OF DEATH: 54

TERMINAL BODY WEIGHT: 199.00 (GMS)

<< ORGAN WEIGHTS >>		ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	DATE					
14-OCT-85	631/91	OVARIES	0.172	0.0864 %	0.0961	HIGH
14-OCT-85	631/91	LIVER	5.425	2.7261 %	3.0307	LOW
14-OCT-85	631/91	KIDNEYS	1.567	0.7874 %	0.8754	OK
14-OCT-85	631/91	ADRENAL GLANDS	0.104	0.0523 %	0.0581	HIGH
14-OCT-85	631/91	HEART	0.728	0.3658 %	0.4067	OK
14-OCT-85	631/91	BRAIN	1.790	0.8995 %	1.0000	OK
14-OCT-85	631/91	SPLEEN	0.450	0.2261 %	0.2514	HIGH

ORGAN NAME	<< GROSS ORGAN OBSERVATIONS >>	
	KEYWORDS / PHRASES	SEVERITY
WHOLE BODY	NO GROSS LESIONS RECOGNIZED	PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS	<< MICROSCOPIC TISSUE OBSERVATIONS >>	
	TISSUE	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
LIVER -BILE DUCTULE EPITHELIAL HYPERPLASIA	NOT SPECIFIED(TRACE)	

URINARY BLADDER	TISSUE IS MISSING
LEUM	TISSUE IS MISSING
SCIATIC NERVE	TISSUE IS MISSING

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 6  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 344 (TOX NO. 240) SEX: FEMALE DOSE GROUP: 3  
DATE OF DEATH: 04-DEC-84 STUDY DAY OF DEATH: 317 STUDY WEEK OF DEATH: 46 SACRIFICE STATUS: SACRIFICED MORIBUND  
TERMINAL BODY WEIGHT: 170.00 (GMS)

<< O R G A N   W E I G H T S >>	
DAY/WEEK OF STUDY	ORGAN NAME
...	...
14-OCT-85	631/91 OVARIES
14-OCT-85	631/91 LIVER
14-OCT-85	631/91 KIDNEYS
14-OCT-85	631/91 ADRENAL GLANDS
14-OCT-85	631/91 HEART
14-OCT-85	631/91 BRAIN
14-OCT-85	631/91 SPLEEN

<< G R O S S   O R G A N   O B S E R V A T I O N S >>	
ORGAN NAME	KEYWORDS / PHRASES
PERITONEAL CAV.	MESENTERY CONGESTED / RED PALE AND / OR TAN COLOR ROUNDED EDGES PROMINENT LOBULAR MARKINGS FOCI
ADRENAL	PRESENT
THYROID GLANDS	PRESENT
LIVER	PRESENT
LIVER	TRACE
KIDNEY	PRESENT
SPLEEN	ENLARGED (SPLENOMEGLY) PRESENT

<< M I C R O S C O P I C   T I S S U E   O B S E R V A T I O N S >>	
TISSUE / HISTOPATHOLOGIC FINDINGS	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
THYMUS	TISSUE IS MISSING
SPLEEN - INFARCTION	NOT SPECIFIED(MARKED)

LETERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

PRINTED: 14-MAR-86  
PAGE: 7

ANIMAL NUMBER: 344 (Tox No. 240) SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: SACRIFICED MORIBUND  
DATE OF DEATH: 04-DEC-84 STUDY DAY OF DEATH: 317 STUDY WEEK OF DEATH: 46 TERMINAL BODY WEIGHT: 170.00 (GMS)

<< HISTOPATHOLOGIC FINDINGS

SPLEEN  
-M. MONONUCLEAR CELL LEUKEMIA

(PRESENT)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP

SPECIES: RAT/FISCHER 344

ANIMAL NUMBER: 345 (TOX No. 242)

STUDY START DATE: 23-JAN-84

DOSE GROUP: 3

STUDY DAY OF DEATH: 326

STUDY WEEK OF DEATH: 47

SACRIFICE STATUS: SACRIFICED MURIBUND

TERMINAL BODY WEIGHT: 199.00 (GMS)

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

PRINTED: 14-MAR-86  
PAGE: 8

STUDY TYPE: CHRONIC/C2 YR CARCINOGENIC

Brown--708

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY				
14-OCT-85	631/91	0.078	0.0392 %	0.0427	OK
14-OCT-85	631/91	7.306	3.6714 %	4.0033	OK
14-OCT-85	631/91	2.122	1.0663 %	1.1627	OK
14-OCT-85	631/91	0.059	0.0296 %	0.0323	HIGH
12-NOV-85	660/95	0.694	0.3487 %	0.3803	OK
14-OCT-85	631/91	1.825	0.9171 %	1.0000	OK
14-OCT-85	631/91	0.447	0.2246 %	0.2449	HIGH

ORGAN NAME	KEYWORDS / PHRASES	GROSS OBSERVATIONS	SEVERITY GROSS-TEXT COMMENTS
PERITONEAL CAV.	LARGE INTESTINE	PRESENT	OUTER SURFACE HAS 2 RED FOCI 5 X .5 CM AND 2 X 2 MM
TISSUE / HISTOPATHOLOGIC FINDINGS	MICROSCOPIC TISSUE	OBSERVATIONS	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
LIVER	-BILE DUCTULE EPITHELIAL HYPERPLASIA	NOT SPECIFIED(TRACE)	
KIDNEY	-PROGRESSIVE RENAL DISEASE	NOT SPECIFIED(MILD)	

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 9  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 346 (Tox No. 243)  
DATE OF DEATH: 28-JAN-85

SEX: FEMALE  
STUDY DAY OF DEATH: 372  
STUDY WEEK OF DEATH: 54

<< O R G A N   W E I G H T S >>	
DAY/WEEK OF STUDY DATE	ORGAN NAME
14-OCT-85 631/91	ABSOLUTE ORGAN WEIGHT (GMS)
14-OCT-85 631/91	0.190
14-OCT-85 631/91	OVARIES
14-OCT-85 631/91	LIVER
14-OCT-85 631/91	KIDNEYS
14-OCT-85 631/91	ADRENAL GLANDS
14-OCT-85 631/91	HEART
14-OCT-85 631/91	BRAIN
14-OCT-85 631/91	SPLEEN
14-OCT-85 631/91	0.472

<< G R O S S   O R G A N   O B S E R V A T I O N S >>	
ORGAN NAME	KEYWORDS / PHRASES
EYES & OPTIC N.	CORNEAL OPACITY

EYES & OPTIC N. PRESENT RIGHT; SMALL PUNCTATE OPACITIES

<< M I C R O S C O P I C   T I S S U E   O B S E R V A T I O N S >>	
TISSUE / HISTOPATHOLOGIC FINDINGS	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
ESOPHAGUS	TISSUE IS MISSING
AORTA	TISSUE IS MISSING
THYMUS	TISSUE IS MISSING

LIVER	NOT SPECIFIED(TRACE)
-BILE DUCTULE EPITHELIAL HYPERPLASIA	TISSUE IS MISSING
SKELETAL MUSCLE	TISSUE IS MISSING

Brown--709

LETERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 10

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 346 (TOX No. 24) SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 2  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 243.00 (GMS)

<< MICROSCOPIC TISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

SCIATIC NERVE ..... TISSUE IS MISSING

Brown--710

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SPECIES: RAT/FISCHER-344

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STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 347 (TOX No. 245) SEX: FEMALE DOSE GROUP: 3 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 SACRIFICE STATUS: INTERIM SACRIFICE 2 DATE OF DEATH: 28-JAN-85 TERMINAL BODY WEIGHT: 212.00 (GMS)

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY	ORGAN NAME			
14-OCT-85	631/91	OVARIES	0.108	0.0509 X	OK
14-OCT-85	631/91	LIVER	6.684	3.1528 X	OK
14-OCT-85	631/91	KIDNEYS	1.532	0.7226 X	OK
14-OCT-85	631/91	ADRENAL GLANDS	0.069	0.0325 X	HIGH
14-OCT-85	631/91	HEART	0.786	0.3708 X	OK
14-OCT-85	631/91	BRAIN	1.701	0.8024 X	OK
14-OCT-85	631/91	SPLEEN	0.496	0.2340 X	HIGH

<< GROSS ORGAN OBSERVATIONS >>		SEVERITY	GROSS FREE TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
EYES & OPTIC N.	OCULAR DISCHARGE	PRESSENT	BILATERAL RED DISCOLORATION AROUND EYES
<< MICROSCOPIC FINDINGS >>		OBSERVATIONS	
ISSUE / HISTOPATHOLOGIC FINDINGS	TISSUE	DISTRIBUTION (SEVERITY)	SPECIAL COMMENTS
PARATHYROID		TISSUE IS MISSING	
HEART	-CARDIOMYOPATHY	NOT SPECIFIED(TRACE)	
THYMUS		TISSUE IS MISSING	
LIVER	-BILE DUCTULE EPITHELIAL HYPERPLASIA -HEPATITIS	NOT SPECIFIED(TRACE) NOT SPECIFIED(TRACE)	

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SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

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PAGE: 12  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 347 (Tox No. 245) SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 2  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 212.00 (GMS)

<< MICROSCOPIC FINDINGS TISSUE OBSERVATIONS >>  
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

URINARY BLADDER ..... TISSUE IS MISSING

UTERUS ..... NOT SPECIFIED(TRACE)  
-PYOMETRA

EYES & OPTIC N. ..... NOT SPECIFIED(TRACE)  
-CORNEAL MINERALIZATION

AD SEBACIOUS ..... TISSUE IS MISSING

Brown--712

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STUDY NUMBER: GLP83009

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STUDY START DATE: 23-JAN-84  
PAGE: 13

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 348 (TOX No. 248) SEX: FEMALE DOSE GROUP: 3  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54  
SACRIFICE STATUS: INTERIM SACRIFICE 2  
TERMINAL BODY WEIGHT: 194.00 (GMS)

<< O R G A N   W E I G H T S >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY	ORGAN NAME			
14-OCT-85	631/91	OVARIES	0.071	0.0366 %	0.0398
14-OCT-85	631/91	LIVER	5.590	2.8814 %	3.1299
14-OCT-85	631/91	KIDNEYS	1.479	0.7624 %	0.8281
14-OCT-85	631/91	ADRENAL GLANDS	0.078	0.0402 %	0.0437
14-OCT-85	631/91	HEART	0.803	0.4139 %	0.4496
14-OCT-85	631/91	BRAIN	1.786	0.9206 %	1.0000
14-OCT-85	631/91	SPLEEN	0.426	0.2196 %	0.2385

<< G R O S S   O R G A N   O B S E R V A T I O N S >>  
ORGAN NAME KEYWORDS / PHRASES  
WHOLE BODY NO GROSS LESIONS RECOGNIZED PRESENT

<< M I C R O S C O P I C   T I S S U E   O B S E R V A T I O N S >>  
TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

THYMUS ..... TISSUE IS MISSING  
LIVER ..... -BILE DUCTULE EPITHELIAL HYPERPLASIA  
KIDNEY ..... -PROGRESSIVE RENAL DISEASE NOT SPECIFIED(MODERATE)  
..... NOT SPECIFIED(TRACE)

Brown--713

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

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PAGE: 14

ANIMAL NUMBER: 349 (TOX NO. 252) SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 2  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 209.00 (GMS)

Brown--714

<< O R G A N   W E I G H T S >>		ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME					
14-OCT-85	631/91	OVARIES	0.108	0.0517 %	0.0632	OK
14-OCT-85	631/91	LIVER	5.414	2.5904 %	3.1679	LOW
14-OCT-85	631/91	KIDNEYS	1.452	0.6947 %	0.8496	OK
14-OCT-85	631/91	ADRENAL GLANDS	0.073	0.0349 %	0.9427	HIGH
14-OCT-85	631/91	HEART	0.807	0.3861 %	0.6722	OK
14-OCT-85	631/91	BRAIN	1.709	0.8177 %	1.0000	OK
14-OCT-85	631/91	SPLEEN	0.469	0.2244 %	0.2744	HIGH

<< G R O S S   O R G A N   O B S E R V A T I O N S >>		SEVERITY	GROSS FREE-TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
UTERUS	HYDROMETRA	PRESENT	DIFFUSE ENLARGEMENT, TWICE THE SIZE OF NORMAL

<< M I C R O S C O P I C   T I S S U E   O B S E R V A T I O N S >>		SEVERITY	DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
TISSUE / HISTOPATHOLOGIC FINDINGS			
EXORBITAL LACRIM			TISSUE IS MISSING
THYMUS			TISSUE IS MISSING
LIVER	-BILE DUCTULE EPITHELIAL HYPERPLASIA -HEPATITIS -FOCUS BASOPHILIC -FOCUS CLEAR		NOT SPECIFIED(TRACE) NOT SPECIFIED(TRACE) NOT SPECIFIED(MILD) NOT SPECIFIED(MILD)
UTERUS	DILATATION OF THE UTERINE LUMEN (HYDROMETRA)		NOT SPECIFIED (PRESENT)

LETERMAN ARMY INSTITUTE OF RESEARCH  
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SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 15

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 349 (TOX No. 252) SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 2  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 209.00 (GMS)

<< MICROSCOPIC TISSUE DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS  
TISSUE / HISTOPATHOLOGIC FINDINGS

COLON .....

ISSUE IS MISSING

STOMACH .....

ISSUE IS MISSING

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER - 344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 16  
STUDY TYPE: CHRONIC/2 YR CARCINOGEN C

ANIMAL NUMBER: 350 (Tox No. 253) SEX: FEMALE  
DATE OF DEATH: 30-MAR-84 STUDY DAY OF DEATH: 68

SACRIFICE STATUS: SACRIFICED MORTIBUND  
STUDY WEEK OF DEATH: 10 TERMINAL BODY WEIGHT: 159.00 (GMS)

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY	ORGAN NAME			
14-OCT-85	631/91	OVARIES	0.089	0.0560 %	0.0541 OK
14-OCT-85	631/91	LIVER	5.085	3.1981 %	3.0931 OK
14-OCT-85	631/91	KIDNEYS	1.194	0.7509 %	0.7263 OK
14-OCT-85	631/91	ADRENAL GLANDS	0.049	0.0308 %	0.0298 HIGH
14-OCT-85	631/91	HEART	0.571	0.3591 %	0.3473 OK
14-OCT-85	631/91	BRAIN	1.644	1.0340 %	1.0000 HIGH
14-OCT-85	631/91	SPLEEN	0.400	0.2516 %	0.2433 HIGH

<< GROSS ORGAN OBSERVATIONS >>  
ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS  
EYES & OPTIC N. CONJUNCTIVITIS PRESENT BILATERAL. RIGHT EYE VASCULARIZATION OF THE CORNEA

<< MICROSCOPIC FINDINGS TISSUE OBSERVATIONS >>  
TISSUE / HISTOPATHOLOGIC FINDINGS TISSUE DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

URINARY BLADDER ..... TISSUE IS MISSING  
RECTUM ..... TISSUE IS MISSING  
MAMMARY GLANDS ..... TISSUE IS MISSING

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SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 1  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 352 (TOX No. 255) SEX: FEMALE DOSE GROUP: 3  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 STUDY WEEK OF DEATH: 54

SACRIFICE STATUS: INTERIM SACRIFICE 2  
TERMINAL BODY WEIGHT: 204.00 (GMS)

<< ORGAN WEIGHTS >>		ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DATE	DAY/WEEK OF STUDY					
14-OCT-85	631/91	OVARIES	0.135	0.0662 %	0.0751	HIGH
14-OCT-85	631/91	LIVER	5.136	2.5176 %	2.8581	LOW
14-OCT-85	631/91	KIDNEYS	1.482	0.7265 %	0.8247	OK
14-OCT-85	631/91	ADRENAL GLANDS	0.058	0.0284 %	0.0323	HIGH
14-OCT-85	631/91	HEART	0.662	0.3245 %	0.3684	OK
14-OCT-85	631/91	BRAIN	1.797	0.8809 %	1.0000	OK
14-OCT-85	631/91	SPLEEN	0.409	0.2005 %	0.2276	HIGH

<< GROSS ORGAN OBSERVATIONS >>		SEVERITY	GROSS TEXT COMMENTS
ORGAN NAME	KEYWORDS / PHRASES		
UTERUS	THICKEN	PRESENT	

<< MICROSCOPIC FINDINGS		ISSUE / HISTOPATHOLOGIC FINDINGS	TISSUE	OBSERVATIONS
UTERUS	DILATATION OF THE UTERINE LUMEN (HYDROMETRA)			DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NOT SPECIFIED (PRESENT)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009

STUDY START DATE: 23-JAN-84

STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 353 (Tox No. 261) SEX: FEMALE DOSE GROUP: 3  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372 SACRIFICE STATUS: INTERIM / TERMINAL  
BODY WEIGHT: 205.00 (GMS)

<< O R G A N W E I G H T S >>

DAY/WEEK DATE OF STUDY	ORGAN NAME	ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
14-OCT-85 631/91	OVARIES	0.103	0.0502 %	0.0568	OK
14-OCT-85 631/91	LIVER	5.665	2.7634 %	3.1264	LOW
14-OCT-85 631/91	KIDNEYS	1.461	0.7127 %	0.8063	OK
14-OCT-85 631/91	ADRENAL GLANDS	0.056	0.0273 %	0.0309	HIGH
14-OCT-85 631/91	HEART	0.621	0.3029 %	0.3427	OK
14-OCT-85 631/91	BRAIN	1.812	0.8839 %	1.0000	OK
14-OCT-85 631/91	SPLEEN	0.501	0.2444 %	0.2765	HIGH

<< G R O S S O R G A N O B S E R V A T I O N S >>  
ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

EYES & OPTIC N. IRREGULAR EYE SURFACE. PRESENT RIGHT CORNEA

<< M I C R O S C O P I C T I S S U E O B S E R V A T I O N S >>  
TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

HEART  
-CARDIOMYOPATHY

LIVER  
-BILE DUCTULE EPITHELIAL HYPERPLASIA  
-HEPATITIS

KIDNEY  
-PROGRESSIVE RENAL DISEASE

NOT SPECIFIED(TRACE)

NOT SPECIFIED(TRACE)  
NOT SPECIFIED(TRACE)

NOT SPECIFIED(TRACE)

LETTERMAN ARMY INSTITUTE OF RESEARCH  
DIV OF RES SUPP, PATH SERV GP  
SPECIES: RAT/FISCHER-344

INDIVIDUAL ANIMAL DATA REPORT  
STUDY NUMBER: GLP83009  
STUDY START DATE: 23-JAN-84

PRINTED: 14-MAR-86  
PAGE: 3  
STUDY TYPE: CHRONIC/2 YR CARCINOGENIC

ANIMAL NUMBER: 354 (Tox No. 264) SEX: FEMALE  
DATE OF DEATH: 28-JAN-85 STUDY DAY OF DEATH: 372

DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 2  
STUDY WEEK OF DEATH: 54 TERMINAL BODY WEIGHT: 197.00 (GMS)

<< ORGAN WEIGHTS >>		ABSOLUTE ORGAN WEIGHT (GMS)	RELATIVE % OF BODY WEIGHT	ORGAN TO BRAIN WEIGHT RATIO	ORGAN STATUS
DAY/WEEK OF STUDY	ORGAN NAME				
14-OCT-85	631/91 OVARIES	0.087	0.0442 %	0.0493	OK
14-OCT-85	631/91 LIVER	5.467	2.7751 %	3.0957	LOW
14-OCT-85	631/91 KIDNEYS	1.512	0.7675 %	0.8562	OK
14-OCT-85	631/91 ADRENAL GLANDS	0.073	0.0371 %	0.0413	HIGH
14-OCT-85	631/91 HEART	0.708	0.3594 %	0.4009	OK
14-OCT-85	631/91 BRAIN	1.766	0.8964 %	1.0000	OK
14-OCT-85	631/91 SPLEEN	0.527	0.2675 %	0.2984	HIGH

<< GROSS ORGAN OBSERVATIONS >>		SEVERITY	GROSS FREE TEXT COMMENTS
ORGAN NAME			
WHOLE BODY	NO GROSS LESIONS RECOGNIZED	PRESENT	

<< MICROSCOPIC FINDINGS >>		TISSUE	OBSERVATIONS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
TISSUE / HISTOPATHOLOGIC FINDINGS			
MAMMARY GLAND			TISSUE IS MISSING
PITUITARY GLAND	-CYST(S)		NOT SPECIFIED (PRESENT)
EYES & OPTIC N.	-CHRONIC KERATITIS		NOT SPECIFIED (TRACE)

Brown--719

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